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Fri 23 Feb 2001
Eff. Date 02/28/00

U.S. Army Corps of Engineers
PROJECT 618-1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)

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TITLE PAGE 1

HANFORD: ER PROGRAM
REMEDIATION 300 Area ACP
300 AREA BURIAL GROUND MODEL
Rev. 4 (3BGN04) 100% Level B
618-1

Designed By: BHI - Estimating Group
Estimated By: BHI - Estimating Group

Prepared By:
BHI - ESTIMATING

Preparation Date: 02/28/00
Effective Date of Pricing: 02/28/00

Sales Tax: 8.00%

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Release 5.30C

(Rev 4) Revised model 3BGN03 100% Level B protection for 300 Area by updating irrigation in Revegetation and Planting. Also, rechecked/incorporated comments from the 1999 Baseline Validation.

(Rev 2) This is a Remedial Action model that was revised around June-July of 1998. It was the first of the Burial Ground RA models to be updated/modified/corrected to include LDR (Land Disposal Restriction). This model was determined to be representative of all sizes of burial grounds at Hanford.
LDR is hazardous chemicals, heavy metals (PCB's, LEAD, TCE's, etc.).

(REV 3) Incorporates comments from 1999 Baseline Validation (addl. notes and math corrections).

Currently in this Model:

1. Direct Distributable Rate = 22.38%
2. General & Administrative = 3.93%
3. Subcontractor Overhead and Profit Rates are as follows:
 - a. Field Overhead = 10%
 - b. Home Office Overhead = 3%
 - c. Profit = 7%
 - d. Bond = Calculated within each model
 - e. B&O Tax = 0.47%
4. Contingency Rate = 0% (Input later if desired)
5. The labor database is LABR00. ERC wages are per FY00-FY02 DWP Guidance dated 5/17/99, update 8/4/99 and IOM 069274. The HSSA rates are based on rates dated 9/1/99.
6. The equipment database used is EQ2000 (NAT99A with updated BHI equipment pool rates per FY00-FY02 DWP Guidance dated 5/17/99) entitled "Equip Rt EP1110-1-8, VIII, Jun99+B".
7. Unit pricing database used is UN9500 (NAT95A with incorporation of quotes to BHI and actuals) entitled "1995 National Unit Price Book +B".
8. Cost for water is excluded from this estimate. The use of water is not charged back to the specific site but is covered in the Distribrs (Facilities and Admin Services).
9. Some of the Labor Resource titles (craft title) changed over time. As sections are updated these titles may be updated but are still the same craft. The following is a crosstalk to those labor resources that have been re-titled;
Rad Con Tech = HAMTC-Radiological Control Tech = Health Physics Tech = Resource Code 10T25 in the Providional Billing Rates.

Special Note #1

To satisfy procedural requirements items 1,2,4,5,6 & 7 are subject to update before running model and issuing final results.

Special Note #2

Project approval of model applies to model structure/productivity/work approach/methodology/material pricing/unit pricing/resources, etc. excluding items in special note #1 above.

Special Note #3

This particular Model has been revised to reflect level B Protection for the full duration of Contminated Escavation (CONDUR). The full crew compliment

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PROJECT NOTES

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for the Level B (originally the Excavate LRD) has been added to each of the excavation tasks in the contaminated zone. Masks and supplied air have also been shown for the full contaminated excavation duration. Cloth PPE have Special Note #4

This model does have the capability to include the Environmental Restoration Disposal Facility (ERDF) transporation and disposal costs that are needed for Focus Fesability Studies (FFS) as well as other studies. To include the ERDF pricing select "yes" to the question on the input screen.
Baseline site cost model estimates will have the ERDF cost turned off. ERDF costs are estimated/included in the ERDF baseline and are to be EXCLUDED in the site remediation baseline.

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	REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
. HANFORD: ER PROGRAM					
HANFORD: ER PROGRAM					
	PRODUCTIVITY DURATION	16.0000 LS / 0.0625			1.0000 LS
A1 0 Non-Contaminated Soil					
Non-Contaminated Soil	N	0.0000			BCF
A1 0 Non-Contaminated Soil					0.0000 BCF
A10 0 LLW of Waste Zone (norm 0.60)					
LLW of Waste Zone (Decimal)	N	0.6000			FACTOR
A10 0 LLW of Waste Zone (norm 0.60)					0.6000 FACTOR
A11 0 Belw Clnp Lvl of Waste Zone(.05)					
Below Cleanup Lvl (as decimal)	N	0.0500			FACTOR
A11 0 Belw Clnp Lvl of Waste Zone(.05)					0.0500 FACTOR
A12 0 Potential LDR of Waste Zone(.15)					
LDR of Waste Zone (as Decimal)	N	0.1500			FACTOR
A12 0 Potential LDR of Waste Zone(.15)					0.1500 FACTOR
A13 0 Spl Handle of Waste Zone (0.05)					
Spl Handle Matl of Waste Zone	N	0.0500			FACTOR
A13 0 Spl Handle of Waste Zone (0.05)					0.0500 FACTOR
A14 0 Asbestos Mtrl of Waste Zone(.15)					
Asbestos of Waste	N	0.1500			FACTOR
A14 0 Asbestos Mtrl of Waste Zone(.15)					0.1500 FACTOR
A15 0 Potential LDR Req Treatment (1.0)					
Pot. LRD Requiring Treatment	N	1.0000			FACTOR

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	REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
A15	0 Potential LDR Req Treatment (1.0)				1.0000 FACTOR
A16	0 Include ERDF Cost? 1=yes 0=no				
	Include ERdf Cost? 1=yes 0=no N	0.0000			YES/NO
A16	0 Include ERDF Cost? 1=yes 0=no				0.0000 YES/NO
A3	0 Contaminated Zone Volume				
	Contaminated Soil N	913111.0000			BCF
A3	0 Contaminated Zone Volume				913111.0000 BCF
A5	0 Top Excavation Length				
	Top Excavation Length N	169.0000			LF
A5	0 Top Excavation Length				169.0000 LF
A6	0 Top Excavation Width				
	Top Excavation Width N	384.0000			LF
A6	0 Top Excavation Width				384.0000 LF
A7	0 Bottom Area				
	Bottom Area N	37950.0000			SF
A7	0 Bottom Area				37950.0000 SF
A8	0 Groundwater Protection Samples				
	GW Protection Smpls (S3,M21,L60) N	0.0000			EA
A8	0 Groundwater Protection Samples				0.0000 EA
A9	0 Depth of Excavation				
	DEPTH OF EXCAVATION N	18.0000			LF
A9	0 Depth of Excavation				18.0000 LF

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ABURDN0 Non Contaminated Soil

Non-Contaminated Soil	N	(0.0000	N	None	
Convert to Cubic Yards	W A1	0 (0.0000	/	Divide by	BCF
Swell Factor	N		27.0000	*	Multiply by	CF/CY
	N		1.1500)	M	(R) Multiply by	
	N		1.0000)	>	Greater of	
	N		0.0000			

ABURDN0 Non Contaminated Soil 0.0000 LCY

ADISBRO Hauling Distance for Borrow

Hauling Distance for Borrow	N	2.0000	MILE
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ADISBRO Hauling Distance for Borrow 2.0000 MILE

AREAST0 Site Area

Top Excavation Length	N	(0.0000	N	None	
Add 30 lf to each side	W A5	0 (	169.0000	+	Add to	LF
Top Excavation Width	N		60.0000)	*	Multiply by	LF
Add 30 lf to each side	W A6	0 (	384.0000	+	Add to	LF
	N		60.0000)	N	None	LF
	N		0.0000)	U	Round Up	
	N		1.0000			

AREAST0 Site Area 101676.0000 SF

ASBVOL0 Asbestos Material Volume

Contaminated Soil & Buried Waste	W A3	0 (	913111.0000	*	Multiply by	BCF
Asbestos Mtrl % of Waste Zone	W A14	0	0.1500	*	Multiply by	FACTOR
Swell Material at 15%	N		1.1500	/	Divide by	
Convert from Cu Ft. to LCY	N		27.0000)	R	Round	CF/CY
	N		1.0000			

ASBVOL0 Asbestos Material Volume 5834.0000 LCY

BCLVOL0 Below Cleanup Level Mat. Volume

Contaminated Soil & Buried Waste	W A3	0 (	913111.0000	*	Multiply by	BCF
Below Cleanup Lvl % Waste Zone	W A11	0	0.0500	*	Multiply by	FACTOR
Swell material at 15%	N		1.1500	/	Divide by	
Convert from Cu Ft to LCY	N		27.0000)	R	Round	CF/CY
	N		1.0000			

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BCLVOL0 Below Cleanup Level Mat. Volume 1945.0000 LCY

CONDUR0 Contam. Zone Excavation Duration

LLW Excavation Duration	W DURLLW0	91.1523	+ Add to	DAY
BCL Excavation Duration	W DURBCL0	7.5977	+ Add to	DAY
Potential LDR Excav. Duration	W DURLDR0	34.7262	+ Add to	DAY
Special Handling Excav. Duration	W DURSPC0	15.0952	+ Add to	DAY
Asbestos Matl. Excav. Duration	W DURASB0	22.7891	+ Add to	DAY

CONDUR0 Contam. Zone Excavation Duration 171.3605 DAYS

CONTRK0 Number of Container Liners

N (	0.0000	N None		
Low Level Waste Volume	W LLWVOL0 (	23335.0000	+ Add to	LCY
Potential LDR Material Volume	W LDRVOL0	5834.0000	+ Add to	LCY
Asbestos Material Volume	W ASBVOLO	5834.0000	* Multiply by	LCY
(2) Liner/container for asbestos	N (	2.0000)	/ Divide by	EA
Waste Volume/cont. = 12.82lcy	N	12.8200	+ Add to	LCY/BOX
Special Handle Material Tonnage	W SPCTON0	11183.7600	/ Divide by	TONS
Load/container 19.3 tons	N (	19.3000)	R Round	
	N	1.0000		

CONTRK0 Number of Container Liners 3765.0000 EA

CYCLES0 Number of Cycles/Truck/Day

Assume 50 min/hr	N (	50.0000	* Multiply by	MIN/HR
8 hours per day	N	8.0000	/ Divide by	HRS/DAY
Truck Cycle Time for Borrow	W TIMTOTO	12.6096)	D Round Down	MIN
	N	1.0000		

CYCLES0 Number of Cycles/Truck/Day 31.0000 CYCLES

DAYPRO0 Total Project Duration

N (	0.0000	N None		
Spread/Compact Soil Qty	W SPREAD0 (	37201.0000	/ Divide by	LCY
Productivity per Day	N	1752.0000)	+ Add to	CY/DAY
Site Area	W AREAST0 (	101676.0000	/ Divide by	SF
Grass, Shrubs, trees, etc./day	N (	348480.0000	* Multiply by	SF/DAY
Area worked twice, halfed prod.	N (	0.5000)	N None	
	N	0.0000)	+ Add to	
Total Excavation Duration	W DAYS 0	171.0000	+ Add to	DAY
Size/load Spec. Handle Mat. Dur.	W DURSIZ0	24.3846	+ Add to	DAY

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LDR Material Treatment Duration		W DURTRT0	38.9973	+ Add to		DAY
Allowance for Mobilization		N	12.0000)	U Round Up		
		N	1.0000			
DAYPRO0 Total Project Duration					269.0000	DAY
DAY	0	Total Excavation Duration				
Non Contaminated Soil		W DUROBN0 (	0.0000	+ Add to		DAY
Contam. Zone Excavation Duration		W CONDUR0	171.3605)	R Round		DAY
		N	1.0000			
DAY	0	Total Excavation Duration			171.0000	DAY
DURASB0 Asbestos Matl. Excav. Duration						
Asbestos Material Volume		W ASBVOL0	5834.0000	/ Divide by		LCY
Production Rate at 32 lcy/hr		N	32.0000	/ Divide by		LCY/HR
Convert to Days at 8 hrs/day		N	8.0000			HRS/DAY
DURASB0	Asbestos Matl. Excav. Duration				22.7891	DAY
DURBCL0 BCL Excavation Duration						
Below Cleanup Level Mat. Volume		W BCLVOL0	1945.0000	/ Divide by		LCY
Production Rate at 32 lcy/hr		N	32.0000	/ Divide by		
Convert to Days @ 8 hrs/day		N	8.0000			HRS/DAY
DURBCL0	BCL Excavation Duration				7.5977	DAY
DURBOR0 Truck/Driver Hours for Borrow						
Backfill Volume		W SPREAD0 (	37201.0000	/ Divide by		LCY
Loading Rate = 219 lcy/hr		N	219.0000)	* Multiply by		LCY/HR
Number of Trucks Req. for Borrow		W NUMTRK0	4.0000			TRUCKS
DURBOR0	Truck/Driver Hours for Borrow				679.4703	HRS
DURFSK0 Frisk Tent Operation Duration						
Contam. Zone Excavation Duration		W CONDUR0 (	171.3605	+ Add to		DAY
Size/load Spec. Handle Mat. Dur.		W DURSIZ0	24.3846)	R Round		DAY
		N	1.0000			
DURFSK0	Frisk Tent Operation Duration				196.0000	DAY

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<hr/>					
DURLDR0 Potential LDR Excav. Duration					
<hr/>					
Potential LDR Material Volume	W LDRVOL0	5834.0000	/ Divide by		LCY
Production Rate at 21 lcy/hr	N	21.0000	/ Divide by		
Convert to days at 8 hrs/day	N	8.0000			
<hr/>					
DURLDR0 Potential LDR Excav. Duration				34.7262	DAYS
<hr/>					
DURLLW0 LLW Excavation Duration					
<hr/>					
Low Level Waste Volume	W LLWVOL0	23335.0000	/ Divide by		LCY
Production Rate @ 32 lcy/hr	N	32.0000	/ Divide by		LCY/HR
Convert to days @ 8 hrs/day	N	8.0000			HRS/DAY
<hr/>					
DURLLW0 LLW Excavation Duration				91.1523	DAYS
<hr/>					
DUROBN0 Overburden Excavation Duration					
<hr/>					
Non Contaminated Soil	W ABURDN0	0.0000	/ Divide by		LCY
Production Rate = 146 lcy/hr	N	146.0000	/ Divide by		LCY/HR
Convert to Days at 8 hrs/day	N	8.0000			HRS/DAY
<hr/>					
DUROBN0 Overburden Excavation Duration				0.0000	DAYS
<hr/>					
DURSIZ0 Size/load Spec. Handle Mat. Dur.					
<hr/>					
Special Handle Material Volume	W SPCVOL0	2536.0000	/ Divide by		LCY
Production Rate at 13 lcy/hr	N	13.0000	/ Divide by		
Convert to Days at 8 hrs/day	N	8.0000			HRS/DAY
<hr/>					
DURSIZ0 Size/load Spec. Handle Mat. Dur.				24.3846	DAYS
<hr/>					
DURSPC0 Special Handling Excav. Duration					
<hr/>					
Special Handle Material Volume	W SPCVOL0	2536.0000	/ Divide by		LCY
Production Rate at 21 lcy/hr	N	21.0000	/ Divide by		
Convert to Days at 8 hrs/day	N	8.0000			HRS/DAY
<hr/>					
DURSPC0 Special Handling Excav. Duration				15.0952	DAYS
<hr/>					
DURTRT0 LDR Material Treatment Duration					
<hr/>					
Volume of P/LDR Req. Treatment	W LDRTRT0	5834.0000	/ Divide by		LCY
Production Rate at 18.7 lcy/hr	N	18.7000	/ Divide by		LCY/HR
Convert to days at 8 hrs/day	N	8.0000			HRS/DAY

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REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
. HANFORD: ER PROGRAM				
DURTRT0 LDR Material Treatment Duration				38.9973 DAYS
ERDFQTO Tonnage of LLW to ERDF				
Include ERDF Cost? 1=yes 0=no	W A16 0	0.0000	* Multiply by	YES/NO
Total Waste Tonnage to Disposal	W WASTON0	69504.2600		TONS
ERDFQTO Tonnage of LLW to ERDF				0.0000 TONS
LDRNTR0 Volume of P/LDR NOT Req.Treated				
Potential LDR Material Volume	W LDRVOL0	5834.0000	- Subtract Next	LCY
Volume of P/LDR Req. Treatment	W LDRTRT0	5834.0000		LCY
LDRNTR0 Volume of P/LDR NOT Req.Treated				0.0000 LCY
LDRTRT0 Volume of P/LDR Req. Treatment				
Potential LDR Material Volume	W LDRVOL0 (	5834.0000	* Multiply by	LCY
% Potential LDR Req. Treatment	W A15 0	1.0000)	R Round	FACTOR
	N	1.0000		
LDRTRT0 Volume of P/LDR Req. Treatment				5834.0000 LCY
LDRVOL0 Potential LDR Material Volume				
Contaminated Soil & Buried Waste	W A3 0 (	913111.0000	* Multiply by	BCF
Potential LDR % of Waste Zone	W A12 0	0.1500	* Multiply by	FACTOR
Swell Material at 15%	N	1.1500	/ Divide by	
Convert from Cu Ft. to LCY	N	27.0000)	R Round	CF/CY
	N	1.0000		
LDRVOL0 Potential LDR Material Volume				5834.0000 LCY
LLWVOL0 Low Level Waste Volume				
Contaminated Soil & Buried Waste	W A3 0 (	913111.0000	* Multiply by	BCF
LLW % of Waste Zone	W A10 0	0.6000	* Multiply by	FACTOR
Swell Material at 15%	N	1.1500	/ Divide by	
Convert from Cu Ft.to LCY	N	27.0000)	R Round	CF/CY
	N	1.0000		
LLWVOL0 Low Level Waste Volume				23335.0000 LCY

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LNGSLA0 Long Slope Area

N	(0.0000	N	None	
N	(0.0000	N	None	
N	(0.0000	N	None	
Top Excavation Length	W A5	0	169.0000	* Multiply by	LF
			2.0000	- Subtract Next	
			3.0000	* Multiply by	
Depth of Excavation	W A9	0	18.0000)	/ Divide by	LF
	N	(	2.0000)	* Multiply by	
Depth of Excavation	W A9	0	18.0000	/ Divide by	LF
COS 56.3 degrees = .55	N		0.5500)	N None	
	N		0.0000)	N None	
	N		0.0000)	* Multiply by	
	N		2.0000		

LNGSLA0 Long Slope Area 9294.5455 SF

MASKST0 Mask Use Total

Total Contaminated Zone duration	W CONDUR0	(	171.3605	* Multiply by	DAYS
Crew Use Rate = 12Masks/day	N		12.0000)	R Round	EA
	N		1.0000		

MASKST0 Mask Use Total 2056.0000 EA

MONTOT0 Number LDR Treatment Monoliths

Treated LDR Waste Tonnage	W TRTTON0	(	14567.0000	/ Divide by	TONS
Weight of Treatment Monolith	N		5.7000)	R Round	TONS
	N		1.0000		

MONTOT0 Number LDR Treatment Monoliths 2556.0000 EA

NUMTRK0 Number of Trucks Req. for Borrow

Total Loader Output	N		219.0000	* Multiply by	LCY/HR
Convert to Days at 8 hrs/day	N		8.0000	/ Divide by	HR/DAY
Number of Cycles/Truck/Day	W CYCLES0		31.0000	B (R) Divide by	CYCLES
Truck Capacity	N		15.0000		LCY

NUMTRK0 Number of Trucks Req. for Borrow 4.0000 TRUCKS

PPELSD0 Number of PPE Sets (disposable)

LLW Excavation Duration	W DURLLW0	(91.1523	* Multiply by	DAY
Crew Use Rate = 28 Sets/day	N		28.0000	+ Add to	SETS

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BCL Excavation Duration	W DURBCL0	7.5977	*	Multiply by	DAYS
Crew Use Rate = 28 Sets/day	N	28.0000	+	Add to	SETS
Special Handling Excav. Duration	W DURSPC0	15.0952	*	Multiply by	DAYS
Crew Use Rate = 28 Sets/day	N	28.0000	+	Add to	SETS
Asbestos Matl. Excav. Duration	W DURASB0	22.7891	*	Multiply by	DAYS
Crew Use Rate = 31 Sets/day	N	31.0000)	U	Round Up	SETS
	N	1.0000			
PPELSD0 Number of PPE Sets (disposable)					3895.0000 SETS
PPESET0 Disposable PPE Sets Total					
Potential LDR Excav. Duration	W DURLDR0 (	34.7262	*	Multiply by	DAYS
Crew Use Rate = 28 sets/day	N	28.0000	+	Add to	SETS
LDR Material Treatment Duration	W DURTRT0	38.9973	*	Multiply by	DAYS
Crew Use Rate = 4 sets/day	N	4.0000)	U	Round Up	SETS
	N	1.0000			
PPESET0 Disposable PPE Sets Total					1129.0000 SETS
QTYWST0 Waste Zone Volume					
Contaminated Soil & Buried Waste W A3	0 (	913111.0000	*	Multiply by	BCF
Swell Material at 15%	N	1.1500	/	Divide by	
Convert from Cu Ft. to LCY	N	27.0000)	R	Round	CF/CY
	N	1.0000			
QTYWST0 Waste Zone Volume					38892.0000 LCY
SAMAIRO Air Monitor(dust) Samples					
	N (	0.0000	N	None	
	N (	0.0000	N	None	
Potential LDR Excav. Duration	W DURLDR0 (	34.7262	+	Add to	DAYS
Asbestos Matl. Excav. Duration	W DURASB0	22.7891	+	Add to	DAYS
LDR Material Treatment Duration	W DURTRT0	38.9973)	/	Divide by	DAYS
Convert to weeks at 5 days/week	N	5.0000)	*	Multiply by	DAY/WK
Sample Frequency = 10 sample/wk	N	10.0000)	R	Round	
	N	1.0000			
SAMAIRO Air Monitor(dust) Samples					193.0000 EA
SAMPCT0 Bottom Area Closure Sample Qty					
	N (	0.0000	N	None	
Bottom Area	W A7 0 (37950.0000	+	Add to	SF
Long Slope Area	W LNGSLA0	9294.5455	+	Add to	SF

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Short Slope Area	W SHSHARE0	23367.2727)	B (R) Divide by		SF
Sample Frequency	N	6264.0000)	> Greater of		SF
Minimum of 6 Samples	N	6.0000			
SAMPCT0 Bottom Area Closure Sample Qty				11.0000 EA	
SAMPHR0 In Site Sampling					
Overburden Excavation Duration	N (	0.0000	N None		
	W DUROBN0 (	0.0000	+ Add to		DAYS
Contam. Zone Excavation Duration	W CONDUR0	171.3605)	* Multiply by		DAYS
Covert to hours at 8 hrs/day	N	8.0000)	R Round		HRS/DAY
	N	1.0000			
SAMPHR0 In Site Sampling				1371.0000 HR	
SAMPML0 Potential LDR Samples -Offsite					
Potential LDR Material Volume	W LDRVOL0 (	5834.0000	B (R) Divide by		LCY
Sample Frequency @ 1 per 150 lcy	N	150.0000)	R Round		LCY/EA
	N	1.0000			
SAMPML0 Potential LDR Samples -Offsite				39.0000 EA	
SAMPNC0 Non-Contam Sample Quantity					
Non Contaminated Soil	W ABURDN0	0.0000	< Lesser of		LCY
Total of 6 samples	N	6.0000	M (R) Multiply by		EA
	N	1.0000			
SAMPNC0 Non-Contam Sample Quantity				0.0000 EA	
SAMPQ10 QC Samples					
GW Protection Smpls (S3,M21,L60)	N (	0.0000	N None		
Air Monitor(dust) Samples	W A8 0 (	0.0000	+ Add to		EA
BOTTOM AREA CLOSURE SAMPLE QTY.	W SAMAIR0	193.0000	+ Add to		EA
Non-Contam Sample Quantity	W SAMPCR0	11.0000	+ Add to		EA
Potential LDR Samples -Offsite	W SAMPML0	0.0000	+ Add to		EA
Treated LDR TCLP Samples	W SMTCLP0	39.0000	+ Add to		EA
5% QC SAMPLES	N	24.0000)	* Multiply by		EA
MINIMUM QUANTITY, 3 EA	N	0.0500)	U Round Up		
	N	1.0000	> Greater of		
	N	3.0000			
SAMPQ10 QC Samples				14.0000 EA	

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SAMPTF0 Total Offsite Samples (detail)					
Bottom Area Closure Sample Qty	W SAMPCR0	11.0000	+ Add to		EA
Potential LDR Samples -Offsite	W SAMPML0	39.0000	+ Add to		EA
QC Samples	W SAMPQ10	14.0000	+ Add to		EA
GW Protection Smpls (S3,M21,L60)	W A8 0	0.0000			EA
SAMPTF0 Total Offsite Samples (detail)				64.0000	EA
SAMPTO0 Total Onsite Samples(Char. Smpl)					
Non-Contam Sample Quantity	W SAMPNC0	0.0000			EA
SAMPTO0 Total Onsite Samples(Char. Smpl)				0.0000	EA
SAMPTS0 Total Subcontractor Samples					
Treated LDR TCLP Samples	W SMTCLP0	24.0000	+ Add to		EA
Air Monitor(dust) Samples	W SAMAIR0	193.0000			EA
SAMPTS0 Total Subcontractor Samples				217.0000	EA
SAMSPL0 Air Supply Samples					
Potential LDR Excav. Duration	N W CONDUR0 (	0.0000 171.3605	N None B (R) Divide by		DAYs
Days per Month (21 days)	N	21.0000	> Greater of		DAYs
Minimum of 1 sample	N	1.0000			EA
SAMSPL0 Air Supply Samples				8.0000	EA
SHSHARE0 Short Slope Area					
Top Excavation Width	N W A6 0	(384.0000	N None * Multiply by		LF
	N	0.0000	- Subtract Next		
	N	0.0000	* Multiply by		
Depth of Excavation	N W A9 0	0 (18.0000)	/ Divide by		LF
	N	2.0000	* Multiply by		
	N	3.0000			
Depth of Excavation	N W A9 0	0 (18.0000)	/ Divide by		LF
COS 56.3 degrees = .55	N	0.5500)	N None		
	N	0.0000)	N None		
	N	0.0000)	* Multiply by		
	N	2.0000			

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SHSARE0 Short Slope Area 23367.2727 SF

SITACR0 Site Area in Acres

Site Area	W AREAST0 (101676.0000	/ Divide by	SF
Convert to Acres	N	43560.0000)	U Round Up	SF/ACRE
	N	0.0100		

SITACR0 Site Area in Acres 2.3400 ACRES

SITEPRO0 Site Perimeter

Top Excavation Length	N	(	0.0000	N	None	
Add 30 lf to each side	W A5	0 (	169.0000	+	Add to	LF
2 sides	N		60.0000)	*	Multiply by	LF
Top Excavation Width	N		2.0000	+	Add to	LF
Add 30 lf to each side	W A6	0 (	384.0000	+	Add to	LF
2 sides	N		60.0000)	*	Multiply by	LF
	N		2.0000)	U	Round Up	
	N		1.0000			

SITEPRO0 Site Perimeter 1346.0000 LF

SMTCLP0 Treated LDR TCLP Samples

Total Volume- Grouted Material	W TRTVOL0 (	7176.0000	B (R) Divide by	LCY
Sample Freq.(TCLP) = 1 per 300cy	N	300.0000)	> Greater of	EA/LCY
Miniumu of one (1) Sample	N	1.0000		EA

SMTCLP0 Treated LDR TCLP Samples 24.0000 EA

SPCTON0 Special Handle Material Tonnage

Special Handle Material Volume	W SPCVOL0	2536.0000	* Multiply by	LCY
Convert to Tons Steel/50% swell	N	4.4100		TON/LCY

SPCTON0 Special Handle Material Tonnage 11183.7600 TONS

SPCVOL0 Special Handle Material Volume

Contaminated Soil & Buried Waste	W A3	0 (	913111.0000	* Multiply by	BCF
Special Handle % of Waste Zone	W A13	0	0.0500	* Multiply by	FACTOR
Swell Material at 50%	N		1.5000	/ Divide by	
Convert from Cu Ft.to LCY	N		27.0000)	R Round	CF/CY
	N		1.0000		

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SPCVOL0 Special Handle Material Volume 2536.0000 LCY

SPREAD0 Backfill Volume

Non Contaminated Soil	W ABURDN0 (	0.0000	+ Add to	LCY
Waste Zone Volume	W QTYWST0	38892.0000)	/ Divide by	LCY
Convert to BCY (Vol. of Hole)	N	1.1500	M (R) Multiply by	
To compensate for compaction	N	1.1000		

SPREAD0 Backfill Volume 37201.0000 LCY

TIMTOTO Truck Cycle Time for Borrow

Loading time for borrow	N	0.0000	N None	
Truck Capacity	N	(15.0000	/ Divide by	LCY
Loader Output	N	219.0000	+ Add to	LCY/HR
Loaded Haul time	N	0.0000	N None	
Hauling Distance for Borrow	W ADISBR0	2.0000	/ Divide by	MILE
Loaded Haul Speed for Borrow	N	30.0000	+ Add to	MPH
Turn & Dump Time	N	0.0250	+ Add to	HRS
Return time for Borrow	N	0.0000	N None	
Hauling Distance for Borrow	W ADISBR0	2.0000	/ Divide by	MILE
Return Speed	N	40.0000)	* Multiply by	MPH
Convert to Minutes	N	60.0000		MIN/HR

TIMTOTO Truck Cycle Time for Borrow 12.6096 MIN

TOTVOL0 Total Volume of Waste to ERDF

Low Level Waste Volume	W LLWVOL0	23335.0000	+ Add to	LCY
Asbestos Material Volume	W ASBVOL0	5834.0000	+ Add to	LCY
Volume of P/LDR NOT Req.Treated	W LDRNTR0	0.0000	+ Add to	LCY
Total Volume- Grouted Material	W TRTVOL0	7176.0000	+ Add to	CY
Special Handle Material Volume	W SPCVOL0	2536.0000		LCY

TOTVOL0 Total Volume of Waste to ERDF 38881.0000 CY&LCY

TRKDUR0 Truck Haul Hours to Queue Area

LLW Excavation Duration	W DURLLW0 (	91.1523	+ Add to	DAY
Asbestos Matl. Excav. Duration	W DURASB0	22.7891)	* Multiply by	DAY
Convert to hours at 8 hra/day	N	8.0000	* Multiply by	HR/DAY
Using three (3) trucks	N	3.0000	+ Add to	UNIT
Size/load Spec. Handle Mat. Dur.	W DURSIZ0 (	24.3846	* Multiply by	DAY
Convert to hours at 8 hrs/day	N	8.0000	* Multiply by	HR/DAY
Using one (1) Truck	N	1.0000)	+ Add to	UNIT

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Volume of P/LDR NOT Req.Treated	N (0.0000	N	None		
	W LDRNTR0 (0.0000	/	Divide by		LCY
Production Rate at 21 lcy/hr	N	21.0000)	*	Multiply by		LCY/HR
Using three (3) Trucks	N	3.0000)				UNITS
TRKDUR0 Truck Haul Hours to Queue Area					2929.6704	HRS
TRTTON0 Treated LDR Waste Tonnage						
Volume of P/LDR Req. Treatment	W LDRTRT0 (	5834.0000	*	Multiply by		LCY
Volume Increase after Treatment	N	1.2300	*	Multiply by		
Convert to Tons @ 150 lbs/CF	N	2.0300)	R	Round		TON/CY
	N	1.0000				
TRTTON0 Treated LDR Waste Tonnage					14567.0000	TONS
TRTVOL0 Total Volume- Grouted Material						
Volume of P/LDR Req. Treatment	W LDRTRT0 (	5834.0000	*	Multiply by		LCY
Volume Increase Due to Treatment	N	1.2300)	R	Round		
	N	1.0000				
TRTVOL0 Total Volume- Grouted Material					7176.0000	CY
WASTON0 Total Waste Tonnage to Disposal						
Low Level Waste Volume	W LLWVOL0 (	23335.0000	+	Add to		LCY
Asbestos Material Volume	W ASBVOL0	5834.0000	+	Add to		LCY
Volume of P/LDR NOT Req.Treated	W LDRNTR0	0.0000)	*	Multiply by		LCY
Convert to Tons (1.5 ton/lcy)	N	1.5000	+	Add to		TON/LCY
Treated LDR Waste Tonnage	W TRTTON0	14567.0000	+	Add to		TONS
Special Handle Material Tonnage	W SPCTON0	11183.7600				TONS
WASTON0 Total Waste Tonnage to Disposal					69504.2600	TONS
O HANFORD: ER PROGRAM					1.0000	EA
01 Mobilization & Prep Work					1.0000	LS
01.04.05 Decon Fac. for Const. Equip/Veh.					24.0000	HR
PRODUCTIVITY		1.0000 HR /HR				
DURATION		24.0000 HR				
Group-6 Power Equipment Operator D		24.0000 HR	M (R)	Multiply by	1.0000	24.0000 HR

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01.04.05. Decon Fac. for Const. Equip/Veh.
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01.04.05. Decon Fac. for Const. Equip/Ve		REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
1	Laborer Group 1, 3 ea.	D	24.0000 HR	M (R) Multiply by	3.0000	72.0000 HR
1	Small Tools - 3 ea	D	24.0000 HR	M (R) Multiply by	3.0000	72.0000 HR
2	TRK,HWY,4X4,F250,3/4T,8800 GVW	D	24.0000 HR	M (R) Multiply by	1.0000	24.0000 HR
3	LOADER/BH, WH, 0.80 CY (0.6 M3), D	D	24.0000 HR	M (R) Multiply by	1.0000	24.0000 HR
01.04.11 Barricades (Install Temp. Fence)		W SITEPRO	1346.0000 LF		1.0000	1346.0000 LF
	PRODUCTIVITY		100.0000 LF /HR			
	DURATION		13.4600 HR			
01	Truck Driver 1 ea	D	13.4600 HR	* Multiply by	1.0000	13.4600 HR
02	FLATBED, 8'x 12.0', W/SIDE RACKS	D	13.4600 HR	* Multiply by	1.0000	13.4600 HR
03	TRK,HWY,4X2,F350,1T,10000 GVW	D	13.4600 HR	* Multiply by	1.0000	13.4600 HR
04	Laborer Group - 2 ea.	D	13.4600 HR	* Multiply by	2.0000	26.9200 HR
05	Small Tool 2 ea	D	13.4600 HR	* Multiply by	2.0000	26.9200 HR
06	Matls./Sup. Allowance for Fence	P	1346.0000 LF	M (R) Multiply by	1.0000	1346.0000 LF
01.04.92 Ground Penetrating Radar (GPR)		W SITACR0	2.3400 ACR		1.0000	2.3400 ACR
	Ground Penetrating Radar	P	2.3400 ACR	* Multiply by	1.0000	2.3400 ACR
01.06 Temp Relocatns/Roads/Struct/Util		W QTYWST0	38892.0000 LCY		1.0000	38892.0000 LCY
01.06.01 Roads (Site Road Maint)Allowance		W QTYWST0	38892.0000 LCY		1.0000	38892.0000 LCY
	Site Road Maintenance	P	38892.0000 LCY	* Multiply by	1.0000	38892.0000 LCY
02 Monitoring, Sampling, & Analysis					1.0000	LS
02.08.05 Sub-Surface Soil (Field Screen-		W SAMPHR0	1371.0000 HR		1.0000	1371.0000 HR
	PRODUCTIVITY		1.0000 HR /HR			
	DURATION		1371.0000 HR			
02	ERC Environmental Engineer 1 ea	D	1371.0000 HR	* Multiply by	1.0000	1371.0000 HR
05	Mob. Field Screening Laboratory	D	1371.0000 HR	* Multiply by	1.0000	1371.0000 HRS
02.08.91 Excav. GW Prot. Sample Trenches		W A8 0	0.0000 EA		1.0000	0.0000 EA
02.08.92 Site Certificaton Sampling		W SAMPCR0	11.0000 EA		1.0000	11.0000 EA
	PRODUCTIVITY		3.0000 EA /HR			
	DURATION		3.6667 HR			

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02.08.92. Site Certificaton Sampling
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02.08.92. Site Certificaton Sampling		REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
Instrument Technician - 2 ea.		D	3.6667 HR M (R) Multiply by		2.0000	7.0000 HR
Materials/Supplies Allowance		P	11.0000 EA * Multiply by		1.0000	11.0000 EA
02.09 Laboratory Chemical Analysis		W SAMAIR0	193.0000 EA		10.0000	19.3000 WKS
02.09.01 Air/Industrial Hygiene Analysis		W SAMAIR0	193.0000 EA		1.0000	193.0000 EA
Air/Industrial Hygiene		P	193.0000 EA * Multiply by		1.0000	193.0000 EA
02.	Analyze LLW Sample - Onsite Lab	W SAMPML0	39.0000 EA M (R) Multiply by		1.0000	39.0000 EA
02.	Analyze Site Certification	W SAMPCR0	11.0000 EA M (R) Multiply by		1.0000	11.0000 EA
02.	Analyze Non-Contaminated Soil	W SAMPNC0	0.0000 EA * Multiply by		1.0000	0.0000 EA
02.	Analyze Potential LDR Samples	W SAMPML0	39.0000 EA * Multiply by		1.0000	39.0000 EA
02.	Analyze Quality Control Samples	W SAMPQ10	14.0000 EA M (R) Multiply by		1.0000	14.0000 EA
08 Solids Collection & Containment					1.0000 LS	
08.01 Contaminated Soil Collection					1.0000 LS	
08.01.02 Excavation (Contaminated Soil)					1.0000 LS	
08.01.02.01 Excavate/Load LLW		W LLWVOL0	23335.0000 LCY		1.0000	23335.0000 LCY
		PRODUCTIVITY	32.0000 LCY/HR			
		DURATION	729.2188 HR			
01	Pwr Eqpmnt Oprtor Medium	W DURLLW0	91.1523 DAY * Multiply by		16.0000	1458.4375 HR
02	HYD EXCAV, CRWLR, 90,200 LBS,	W DURLLW0	91.1523 DAY * Multiply by		8.0000	729.2188 HR
03	LDR,FE, WH, 4.50 CY, ARTIC, 966F	W DURLLW0	91.1523 DAY * Multiply by		8.0000	729.2188 HR
05	Laborer Group -(Semi-Skilled)	W DURLLW0	91.1523 DAY * Multiply by		40.0000	3646.0938 HR
05	Small Tools 5 ea	W DURLLW0	91.1523 DAY * Multiply by		40.0000	3646.0938 HR
10	RAD CON TECH (NEW ID 10T25)	W DURLLW0	91.1523 DAY * Multiply by		20.0000	1823.0469 HR
11	ERC FLD SUPPORT (Waste Shipper)	W DURLLW0	91.1523 DAY * Multiply by		8.0000	729.2188 HR
12	ERC ENV LEAD & SPCLST (Sampler)	W DURLLW0	91.1523 DAY * Multiply by		8.0000	729.2188 HR
13	ERC SAFTY AND HEALTH (Hygenist)	W DURLLW0	91.1523 DAY * Multiply by		8.0000	729.2188 HR
14	Level B Superv. - Contractor	W DURLLW0	91.1523 DAY * Multiply by		8.0000	729.2188 HR
15	Industrial Hygenist- Contractor	W DURLLW0	91.1523 DAY * Multiply by		8.0000	729.2188 HR
08.01.02.02 Excavate/Load BCL Soils		W BCLVOL0	1945.0000 LCY		1.0000	1945.0000 LCY
		PRODUCTIVITY	32.0000 LCY/HR			
		DURATION	60.7813 HR			
1	Pwr Eqpmnt Oprtor Medium	W DURBCL0	7.5977 DAY * Multiply by		16.0000	121.5625 HR
2	HYD EXCAV, CRWLR, 90,200 LBS,	W DURBCL0	7.5977 DAY * Multiply by		8.0000	60.7813 HR

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08.01.02.02. Excavate/Load BCL Soils
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08.01.02.02. Excavate/Load BCL Soils		REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
3	LDR,FE, WH, 4.50 CY, ARTIC, 966F	W DURBCL0	7.5977 DAY *	Multiply by	8.0000	60.7813 HR
4	Laborer Group - (Semi-Skilled)	W DURBCL0	7.5977 DAY *	Multiply by	40.0000	303.9063 HR
4	Small Tools 5 ea	W DURBCL0	7.5977 DAY *	Multiply by	40.0000	303.9063 HR
5	RAD CON TECH (NEW ID 10T25)	W DURBCL0	7.5977 DAY *	Multiply by	20.0000	151.9531 HR
6	ERC FLD SUPPORT (Waste Shipper)	W DURBCL0	7.5977 DAY *	Multiply by	8.0000	60.7813 HR
7	ERC ENV LEAD & SPCLST (Sampler)	W DURBCL0	7.5977 DAY *	Multiply by	8.0000	60.7813 HR
8	TRK, OFF-HWY, R-DUMP, 15-19CY, 25T	W DURBCL0	7.5977 DAY *	Multiply by	16.0000	121.5625 HR
9	Truck Driver Group-10	W DURBCL0	7.5977 DAY *	Multiply by	16.0000	121.5625 HR
10	ERC SAFTY AND HEALTH -Hygenist	W DURBCL0	7.5977 DAY *	Multiply by	8.0000	60.7813 HR
11	Level B Superv. Contractor	W DURBCL0	7.5977 DAY *	Multiply by	8.0000	60.7813 HR
12	Industrial Hygenite- Contractor	W DURBCL0	7.5977 DAY *	Multiply by	8.0000	60.7813 HR
08.01.02.03 Excavate/Load LDR Materials		W LDRVOL0	5834.0000 LCY		1.0000	5834.0000 LCY
	PRODUCTIVITY		21.0000 LCY/HR			
	DURATION		277.8095 HR			
1	Pwr Eqpmnt Oprtor Medium	W DURLDR0	34.7262 DAY *	Multiply by	16.0000	555.6190 HR
2	HYD EXCAV, CRWLR, 90,200 LBS,	W DURLDR0	34.7262 DAY *	Multiply by	8.0000	277.8095 HR
3	LDR,FE, WH, 4.50 CY, ARTIC, 966F	W DURLDR0	34.7262 DAY *	Multiply by	8.0000	277.8095 HR
4	Laborer Group - 5 (Semi-Skilled)	W DURLDR0	34.7262 DAY *	Multiply by	40.0000	1389.0476 HR
4	Small Tools 5 ea	W DURLDR0	34.7262 DAY *	Multiply by	40.0000	1389.0476 HR
5	RAD CON TECH (NEW ID 10T25)	W DURLDR0	34.7262 DAY *	Multiply by	20.0000	694.5238 HR
5	ERC SAFTY & HEALTH (Hygenist)	W DURLDR0	34.7262 DAY *	Multiply by	8.0000	277.8095 HR
6	ERC FLD SUPPORT (Waste Shipper)	W DURLDR0	34.7262 DAY *	Multiply by	8.0000	277.8095 HR
7	ERC ENV LEAD & SPCLST (Sampler)	W DURLDR0	34.7262 DAY *	Multiply by	8.0000	277.8095 HR
7	Level B Supv. (S/C)	W DURLDR0	34.7262 DAY *	Multiply by	8.0000	277.8095 HR
8	20 Ton Tilt Trailer	W DURRT0	38.9973 DAY *	Multiply by	8.0000	311.9786 HR
8	TRK,HWY, 46,000 GVW, 6X4, 3 AXLE	W DURRT0	38.9973 DAY *	Multiply by	8.0000	311.9786 HR
9	Truck Driver Group-10	W DURRT0	38.9973 DAY *	Multiply by	8.0000	311.9786 HR
10	Industrial Hygenist- Contractor	W DURLDR0	34.7262 DAY *	Multiply by	8.0000	277.8095 HR
08.01.02.04 Excavate/Load Special Handling		W SPCVOL0	2536.0000 LCY		1.0000	2536.0000 LCY
	PRODUCTIVITY		21.0000 LCY/HR			
	DURATION		120.7619 HR			
01	Pwr Eqpmnt Oprtor Medium	W DURSPC0	15.0952 DAY *	Multiply by	8.0000	120.7619 HR
02	HYD EXCAV, CRWLR, 90,200 LBS,	W DURSPC0	15.0952 DAY *	Multiply by	8.0000	120.7619 HR
05	Laborer Group - (Semi-Skilled)	W DURSPC0	15.0952 DAY *	Multiply by	40.0000	603.8095 HR
05	Small Tools 5 ea	W DURSPC0	15.0952 DAY *	Multiply by	40.0000	603.8095 HR
10	RAD CON TECH (NEW ID 10T25)	W DURSPC0	15.0952 DAY *	Multiply by	20.0000	301.9048 HR
11	ERC FLD SUPPORT (Waste Shipper)	W DURSPC0	15.0952 DAY *	Multiply by	8.0000	120.7619 HR
12	ERC ENV LEAD & SPCLST (Sampler)	W DURSPC0	15.0952 DAY *	Multiply by	8.0000	120.7619 HR
13	ERC SAFTY AND HEALTH- Hygenist	W DURSPC0	15.0952 DAY *	Multiply by	8.0000	120.7619 HR
14	Level B Superv. - Contractor	W DURSPC0	15.0952 DAY *	Multiply by	8.0000	120.7619 HR
15	Industrial Hygenist- Contractor	W DURSPC0	15.0952 DAY *	Multiply by	8.0000	120.7619 HR

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300 Area Burial Gnd Model-100% Level B (3BGN04)
08.01.02.05. Excavate/Load Asbestos Waste
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08.01.02.05. Excavate/Load Asbestos Waste					
	W ASBVOLO	5834.0000 LCY		1.0000	5834.0000 LCY
	PRODUCTIVITY	32.0000 LCY/HR			
	DURATION	182.3125 HR			
01	Pwr Eqpmnt Oprtor Medium	W DURASB0	22.7891 DAY * Multiply by	16.0000	364.6250 HR
02	HYD EXCAV, CRWLR, 90,200 LBS,	W DURASB0	22.7891 DAY * Multiply by	8.0000	182.3125 HR
03	LDR,FE, WH, 4.50 CY, ARTIC, 966F	W DURASB0	22.7891 DAY * Multiply by	8.0000	182.3125 HR
05	Laborer Group -(Semi-Skilled)	W DURASB0	22.7891 DAY * Multiply by	40.0000	911.5625 HR
05	Small Tools 5 ea	W DURASB0	22.7891 DAY * Multiply by	40.0000	911.5625 HR
10	RAD CON TECH (NEW ID 10T25)	W DURASB0	22.7891 DAY * Multiply by	20.0000	455.7813 HR
11	ERC FLD SUPPORT (Waste Shipper)	W DURASB0	22.7891 DAY * Multiply by	8.0000	182.3125 HR
12	ERC ENV LEAD & SPCLST (Sampler)	W DURASB0	22.7891 DAY * Multiply by	8.0000	182.3125 HR
13	ERC SAFTY AND HEALTH- Hygenist	W DURASB0	22.7891 DAY * Multiply by	8.0000	182.3125 HR
14	Level B Superv. - Contractor	W DURASB0	22.7891 DAY * Multiply by	8.0000	182.3125 HR
15	Industrial Hygenist- Contractor	W DURASB0	22.7891 DAY * Multiply by	8.0000	182.3125 HR
08.01.02.06 Provide Dust Suppression					
	W CONDUR0	171.3605 DAY		1.0000	171.3605 DAY
	PRODUCTIVITY	1.0000 DAY/DAY			
	DURATION	171.3605 DAY			
	Truck Driver Group-10	P	171.3605 DAY * Multiply by	8.0000	1370.8840 HR
	TRK,WTR,OFF-HWY, 6000GAL,CAT621E	P	171.3605 DAY * Multiply by	8.0000	1370.8840 HR
08.01.03 Hauling (To Queue Area)					
	W TRKDUR0	2929.6704 HRS		1.0000	2929.6704 HRS
	PRODUCTIVITY	1.0000 HRS/HRS			
	DURATION	2929.6704 HRS			
07	Heavy Truck Driver	P	2929.6704 HRS * Multiply by	1.0000	2929.6704 HR
08	TRK,HWY, 46,000 GVW, 6X4, 3 AXLE	P	2929.6704 HRS * Multiply by	1.0000	2929.6704 HR
09	20 Ton Tilt Trailer	P	2929.6704 HRS * Multiply by	1.0000	2929.6704 HR
08.01.04.01 Excavate and Stockpile					
	W ABURDN0	0.0000 LCY		1.0000	0.0000 LCY
	PRODUCTIVITY	146.0000 LCY/HR			
	DURATION	0.0000 HR			
01	Group-7 Pwr Eqpmnt Oprtor Medium	D	0.0000 HR * Multiply by	1.0000	0.0000 HR
02	HYD EXCAV, CRWLR, 90,200 LBS,	D	0.0000 HR * Multiply by	1.0000	0.0000 HR
05	Heavy Truck Driver	D	0.0000 HR * Multiply by	2.0000	0.0000 HR
06	TRK,OFF-HWY,R-DUMP, 15-19CY, 25T	D	0.0000 HR * Multiply by	2.0000	0.0000 HR
08.01.04.02 Provide Dust Suppression					
	W ABURDN0	0.0000 LCY		1.0000	0.0000 LCY

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08.01.04.02. Provide Dust Suppression
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08.01.04.02. Provide Dust Suppression		REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
<hr/>						
2	Truck Driver Group-10	D	0.0000 HR * Multiply by		1.0000	0.0000 HR
3	TRK,WTR,OFF-HWY, 6000GAL,CAT621E	D	0.0000 HR * Multiply by		1.0000	0.0000 HR
6	Crusting Agent, Assume 1 gal of	P	0.0000 LCY * Multiply by		1.0000	0.0000 LCY
08.01.91 Frisking Tent Operations						
					1.0000 LS	
	PRODUCTIVITY		1.0000 LS /HR			
	DURATION		1.0000 HR			
08.01.91.01 Frisk Containers/Trucks						
	W DURFSK0		196.0000 DAY		1.0000	196.0000 DAY
	PRODUCTIVITY		1.0000 DAY/DAY			
	DURATION		196.0000 DAY			
Radiation Control Techs. (2 ea) W DURFSK0						
	196.0000 DAY * Multiply by			16.0000	3136.0000 HR	
08.01.91.02 Decontaminate Containers						
	W DURFSK0		196.0000 DAY		1.0000	196.0000 DAY
	PRODUCTIVITY		1.0000 DAY/DAY			
	DURATION		196.0000 DAY			
1	Laborer Group - 2	P	196.0000 DAY * Multiply by		16.0000	3136.0000 HRS
	WATER BLASTR, COLD WTR, 2500 PSI	P	196.0000 DAY * Multiply by		8.0000	1568.0000 HR
1	PUMP, WATER, SUB, 3", 278GPM/20'HD	P	196.0000 DAY * Multiply by		8.0000	1568.0000 HR
2	WATER TANK, PORT, 12000GAL, 10"PIPE	P	196.0000 DAY * Multiply by		8.0000	1568.0000 HR
3	Small Tools - 2 ea	P	196.0000 DAY * Multiply by		16.0000	3136.0000 HR
08.01.92 Queue Area Operations						
	W DURFSK0		196.0000 DAY		1.0000	196.0000 DAY
	PRODUCTIVITY		1.0000 DAY/DAY			
	DURATION		196.0000 DAY			
01	LABORERS (2 EA.)	P	196.0000 DAY * Multiply by		16.0000	3136.0000 HR
02	Radiation Control Tech. (.5 FTE)	P	196.0000 DAY * Multiply by		4.0000	784.0000 HR
03	Container Liners	W CONTRK0	3765.0000 EA * Multiply by		1.0000	3765.0000 EA.
08.01.93 Radiation Control Tech. Support						
	W DUROBN0		0.0000 DAY		1.0000	0.0000 DAY
	PRODUCTIVITY		1.0000 DAY/DAY			
	DURATION		0.0000 DAY			
Radiation Control Technician W DUROBN0						
	0.0000 DAY M (R) Multiply by			20.0000	0.0000 HR	

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08.01.94. Site Lighting
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08.01.94. Site Lighting		REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
08.01.94 Site Lighting		W CONDUR0	171.3605 DAY		1.0000	171.3605 DAY
1 LITE SET, 6L/1000W, 8KW-GEN,TRLR		W CONDUR0	171.3605 DAY * Multiply by		8.0000	1370.8840 HR
08.01.95.01 PPE (Subcontractor Furnished)						1.0000 LS
		PRODUCTIVITY	1.0000 LS /HR			
		DURATION	1.0000 HR			
01	Disposable PPE Sets	W PPESET0	1129.0000 SET * Multiply by		1.0000	1129.0000 SET
02	Subcontractor Supplied Masks	W MASKST0	2056.0000 EA * Multiply by		1.0000	2056.0000 EA
03	PPE Requirements - Disposable	W PPELSD0	3895.0000 SET * Multiply by		1.0000	3895.0000 EA
08.01.95.02 Laundry Services					0.0000	LS
		PRODUCTIVITY	1.0000 LS /HR			
		DURATION	0.0000 HR			
Regulated PPE Laundry Mask Cleaning Services		W CONDUR0	171.3605 DAY M (R) Multiply by		8.0000	1371.0000 HR
		W CONDUR0	171.3605 DAY B (R) Divide by		30.0000	6.0000 MO
08.01.95.03 Air Supply - Level B Protection		W CONDUR0	171.3605 DAY		1.0000	171.3605 DAY
		PRODUCTIVITY	1.0000 DAY/HR			
		DURATION	171.3605 HR			
AIR COMPR, 185 CFM, 100 PSI AIR HOSE, 0.75", 100', YELLOW-LIN GENERATOR, 113 KW, 240/480V, Air Sample & Analysis		W CONDUR0 W CONDUR0 W CONDUR0 W SAMSPLO	171.3605 DAY * Multiply by 171.3605 DAY * Multiply by 171.3605 DAY * Multiply by 8.0000 EA * Multiply by		8.0000 80.0000 8.0000 1.0000	1370.8840 HR 13708.8400 HR 1370.8840 HR 8.0000 EA
10.07.91 Size Reduction of Special Matl		W SPCVOL0	2536.0000 LCY		1.0000	2536.0000 LCY
OPERATING ENGINEERS (S/C) HYD EXCAV, CRWLR, 90,200 LBS, SHEAR, 32"OPEN, 32"THROAT,13'4"RCH		W DURSIZ0 W DURSIZ0 W DURSIZ0	24.3846 DAY * Multiply by 24.3846 DAY * Multiply by 24.3846 DAY * Multiply by		8.0000 8.0000 8.0000	195.0769 HR 195.0769 HR 195.0769 HR
15.04 Grouting (Portland Cement)		W TRTVOL0	7176.0000 CY		1.0000	7176.0000 CY
CONC DISP, 50 CF CEMENT BIN FORK LIFT,YRD 15,500#,17.67'L-HT HYD EXCAV, CRWLR, 1.125CY BKT, LABORERS (S/C) - 2 ea. OPERATING ENGINEERS (S/C) Sonotube forms 4 ft dia x 6 ft L		W DURTRT0 W DURTRT0 W DURTRT0 W DURTRT0 W DURTRT0 W TRTVOL0	38.9973 DAY * Multiply by 38.9973 DAY * Multiply by 38.9973 DAY * Multiply by 38.9973 DAY * Multiply by 38.9973 DAY * Multiply by 7176.0000 CY * Multiply by		8.0000 8.0000 8.0000 16.0000 16.0000 1.0000	311.9786 HR 311.9786 HR 311.9786 HR 623.9572 HR 623.9572 HR 7176.0000 CY

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15.04. Grouting (Portland Cement)
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15.04. Grouting (Portland Cement)	REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
Portland Cement (Dry) TCLP (leachability test)	W LDRVOL0 W SMTCLP0	5834.0000 LCY M (R) Multiply by 24.0000 EA * Multiply by		0.2300 1.0000	1342.0000 CY 24.0000 EA
15.91 Load Stabilized Waste onto Truck	W MONTOTO PRODUCTIVITY DURATION	2556.0000 EA 6.2500 EA /HR 408.9600 HR		1.0000	2556.0000 EA
FORK LIFT,YRD 15,500#,17.67'L-HT D OPERATING ENGINEERS (S/C) D LABORERS (S/C) - 2 ea. D SMALL TOOLS 2 ea D		408.9600 HR * Multiply by 408.9600 HR * Multiply by 408.9600 HR * Multiply by 408.9600 HR * Multiply by		1.0000 1.0000 2.0000 2.0000	408.9600 HR 408.9600 HR 817.9200 HR 817.9200 HR
18 Disposal (Other than Commercial)					1.0000 LS
18.21 Trans. to Storage/Disp. Facility	W WASTONO	69504.2600 TON		1.0000	69504.2600 TON
ERDF Transporation Costs	W ERDFQTO	0.0000 TON * Multiply by		1.0000	0.0000 TON
18.22 Disposal Fees and Taxes (ERDF)	W WASTONO	69504.2600 TON		1.0000	69504.2600 TON
Disposal Facility Fees & Taxes	W ERDFQTO	0.0000 TON * Multiply by		1.0000	0.0000 TON
20 Site Restoration					1.0000 LS
20.01.03 Backfill (Load/Haul Borrow)	W SPREAD0 PRODUCTIVITY DURATION	37201.0000 LCY 219.0000 LCY/HR 169.8676 HR		1.0000	37201.0000 LCY
01 Group-7 Pwr Eqpmnt Oprtor Medium D 02 LDR,FE, WH, 4.50 CY, ARTIC, 966F D 03 Truck Drivers Group-8 W DURBOR0 04 TRK,OFF-HWY,R-DUMP, 15-19CY, 25T W DURBOR0 05 Truck Driver (Group 8) D 06 TRK,WTR,OF-HY, 6000GAL,W/CAT621E D		169.8676 HR * Multiply by 169.8676 HR * Multiply by 679.4703 HRS * Multiply by 679.4703 HRS * Multiply by 169.8676 HR * Multiply by 169.8676 HR * Multiply by		1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	169.8676 HR 169.8676 HR 679.4703 HR 679.4703 HR 169.8676 HR 169.8676 HR
20.01.06 Spreading (Spread/Comp. Borrow)	W SPREAD0 PRODUCTIVITY DURATION	37201.0000 LCY 219.0000 LCY/HR 169.8676 HR		1.0000	37201.0000 LCY
01 Group-7 Pwr Eqpmnt Oprtor Medium D 02 DOZER, CRWLR, 251-300 HP D		169.8676 HR * Multiply by 169.8676 HR * Multiply by		1.0000 1.0000	169.8676 HR 169.8676 HR

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20.01.06. Spreading (Spread/Comp. Borrow)
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20.01.06. Spreading (Spread/Comp. Borrow)		REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
04		Truck Driver Group 8	D	169.8676 HR * Multiply by	1.0000	169.8676 HR
05		TRK,WTR,OFF-HWY, 6000GAL,CAT621E	D	169.8676 HR * Multiply by	1.0000	169.8676 HR
20.04.01 Seeding/Mulch/Fertilizer (Grass)						
01		Operating Engineer	D	2.3400 ACR * Multiply by	2.0000	4.6800 HR
02		4 Wheel Drive Tractor	D	2.3400 HR * Multiply by	2.0000	4.6800 HRS
03		Mulch Spreader	D	2.3400 HR * Multiply by	1.0000	2.3400 HRS
04		Tiller	D	2.3400 HR * Multiply by	1.0000	2.3400 HRS
05		Primary Seeder	D	2.3400 HR * Multiply by	1.0000	2.3400 HRS
06		Seed, Fertilizer, and Mulch	W SITACR0	2.3400 ACR * Multiply by	1.0000	2.3400 ACR
20.04.04 Shrubs, Trees, & Groundcover						
01		SAGE BRUSH TUBLINGS	P	2.3400 ACR M (R) Multiply by	400.0000	936.0000 EA
02		LABORERS (6 EA.)	D	2.3400 HR * Multiply by	6.0000	14.0400 HR
03		LABORER (Working Supervisor)	D	2.3400 HR * Multiply by	1.0000	2.3400 HR
04		TRK,HWY, 8,800GVW,4X4, 3/4T-PKUP	D	2.3400 HR * Multiply by	1.0000	2.3400 HR
05		SMALL TOOLS	D	2.3400 HR * Multiply by	6.0000	14.0400 HR
20.04.91 Irrigation						
01		Truck Driver	D	38.2656 HR * Multiply by	1.0000	38.2649 HR
02		TRLR,WATER TANKER,4000GAL	D	38.2656 HR M (R) Multiply by	1.0000	38.0000 HR
03		TRK,HWY, 43,000 GVW, 6X4,3 AXLE	D	38.2656 HR M (R) Multiply by	1.0000	38.0000 HR
06		2" Dist. Lines w/ Sprinkler Hds	W SITACR0	2.3400 ACR * Multiply by	1.0000	2.3400 ACR
21 Demobilization						
21.01 Removal of Temporary Facilities					1.0000 LS	
21.01.05 Decon. Fac. for Const. Equip/Veh					1.0000 LS	
01		PRODUCTIVITY		1.0000 HR /HR	16.0000 HR	
02		DURATION		16.0000 HR		

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21.01.05. Decon. Fac. for Const. Equip/Veh
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21.01.05. Decon. Fac. for Const. Equip/VREFERENCE		REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
01	Group-6 Power Equipment Operator D	16.0000 HR	M (R) Multiply by	1.0000	16.0000 HR
02	LOADER/BH, WH, 0.80 CY (0.6 M3), D	16.0000 HR	M (R) Multiply by	1.0000	16.0000 HR
03	Truck Driver D	16.0000 HR	M (R) Multiply by	1.0000	16.0000 HR
04	TRK, OFF-HWY, R-DUMP, 15-19CY, 25T D	16.0000 HR	M (R) Multiply by	1.0000	16.0000 HR
05	Laborer Group - 1 D	16.0000 HR	M (R) Multiply by	3.0000	48.0000 HR
06	Small Tools - 3 ea D	16.0000 HR	M (R) Multiply by	3.0000	48.0000 HR
21.01.11 Barricades (Remove Temp. Fence)					
	W SITEPRO	1346.0000 LF		1.0000	1346.0000 LF
	PRODUCTIVITY	200.0000 LF /HR			
	DURATION	6.7300 HR			
FLATBED, 8'x 12.0', W/SIDE RACKS D		6.7300 HR	M (R) Multiply by	1.0000	7.0000 HR
	TRK,HWY,4X2,F350,1T,10000 GVW D	6.7300 HR	M (R) Multiply by	1.0000	7.0000 HR
	Small Tools - 2 ea D	6.7300 HR	M (R) Multiply by	2.0000	13.0000 HR
	LABORERS - 2 ea. D	6.7300 HR	M (R) Multiply by	2.0000	13.0000 HR
	TEAMSTERS (S/C) - 1 ea. D	6.7300 HR	M (R) Multiply by	1.0000	7.0000 HR
21.01.91 Misc. Cleanup Allowance					8.0000 HR
	PRODUCTIVITY	1.0000 HR /HR			
	DURATION	8.0000 HR			
01	Truck Driver D	8.0000 HR	* Multiply by	1.0000	8.0000 HR
02	TRK,HWY,4X2,F350,1T,10000 GVW D	8.0000 HR	M (R) Multiply by	1.0000	8.0000 HR
03	FLATBED, 8'x 12.0', W/SIDE RACKS D	8.0000 HR	M (R) Multiply by	1.0000	8.0000 HR
04	LABORERS D	8.0000 HR	* Multiply by	2.0000	16.0000 HR
04	SMALL TOOLS 2 ea D	8.0000 HR	* Multiply by	2.0000	16.0000 HR
70.	ERC PLANNING & CONTROLS W DAYPRO0	269.0000 DAY	M (R) Multiply by	2.6900	724.0000 HR
70.	ERC DESIGN ENGINEERING W DAYPRO0	269.0000 DAY	M (R) Multiply by	1.7200	463.0000 HR
70.	ERC PROJECT ENGINEER W DAYPRO0	269.0000 DAY	M (R) Multiply by	2.2700	611.0000 HR
70.	ERC PROCUREMENT W DAYPRO0	269.0000 DAY	M (R) Multiply by	1.6500	444.0000 HR
70.	ERC PROJECT MANAGEMENT W DAYPRO0	269.0000 DAY	M (R) Multiply by	3.3400	898.0000 HR
70.	ERC QUALITY ASSURANCE W DAYPRO0	269.0000 DAY	M (R) Multiply by	0.5400	145.0000 HR
70.	ERC FIELD SUPPORT W DAYPRO0	269.0000 DAY	M (R) Multiply by	8.5200	2292.0000 HR
70.	ERC ADMINISTRATIVE SERVICES W DAYPRO0	269.0000 DAY	M (R) Multiply by	1.4100	379.0000 HR
70.	ERC RAD. CON. ENGINEER W DAYPRO0	269.0000 DAY	M (R) Multiply by	0.4600	124.0000 HR
70.	ERC SAFETY AND HEALTH W DAYPRO0	269.0000 DAY	M (R) Multiply by	1.4200	382.0000 HR
XXX.	Non-Contaminated Soil W A1 0	0.0000 BCF	* Multiply by	1.0000	0.0000 BCF
XXX.	Contaminated Soil & Buried Waste W A3 0	913111.0000 BCF	* Multiply by	1.0000	913111.0000 BCF
XXX.	Top Excavation Length W A5 0	169.0000 LF	* Multiply by	1.0000	169.0000 LF
XXX.	Top Excavation Width W A6 0	384.0000 LF	* Multiply by	1.0000	384.0000 LF
XXX.	Bottom Area W A7 0	37950.0000 SF	* Multiply by	1.0000	37950.0000 SF
XXX.	Hauling Distance for Borrow W ADISBR0	2.0000 MIL	* Multiply by	1.0000	2.0000 MI
XXX.	Groundwater Protection Samples W A8 0	0.0000 EA	* Multiply by	1.0000	0.0000 EA
XXX.	Depth of Excavation W A9 0	18.0000 LF	* Multiply by	1.0000	18.0000 LF
XXX.	LLW % of Waste Zone W A10 0	0.6000 FAC	* Multiply by	1.0000	0.6000 FAC
XXX.	Below Cleanup Level % Waste Zone W A11 0	0.0500 FAC	* Multiply by	1.0000	0.0500 FAC

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XXX.XX. Input Quantities
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XXX.XX. Input Quantities	REFERENCE	REF VALUE	OPERATOR	LOCAL INPUT	QUANTITY UOM
XXX. Potential LDR % Waste Zone	W A12 0	0.1500	FAC *	Multiply by	1.0000 0.1500 FAC
XXX. Special Handling % Waste Zone	W A13 0	0.0500	FAC *	Multiply by	1.0000 0.0500 FAC
XXX. Asbestos Matl % Waste Zone	W A14 0	0.1500	FAC *	Multiply by	1.0000 0.1500 FAC
XXX. % Potential LDR Require Treatment	W A15 0	1.0000	FAC *	Multiply by	1.0000 1.0000 FAC
XXX. Non-Contaminated Soil - Reduced	W ABURDN0	0.0000	LCY *	Multiply by	1.0000 0.0000 LCY
XXX. Site Area	W AREAST0	101676.0000	SF *	Multiply by	1.0000 101676.0000 SF
XXX. Total Project Duration	W DAYPRO0	269.0000	DAY *	Multiply by	1.0000 269.0000 DAY
XXX. Total Excavation Duration	W DAYS 0	171.0000	DAY *	Multiply by	1.0000 171.0000 DAY
XXX. Tonnage of LLW	W WASTONO	69504.2600	TON *	Multiply by	1.0000 69504.2600 TON
XXX. Total Volume of Waste to ERDF	W TOTVOL0	38881.0000	CY& *	Multiply by	1.0000 38881.0000 LCY
XXX. Monoliths Vol (incl in EDRF Vol)	W TRTVOL0	7176.0000	CY *	Multiply by	1.0000 7176.0000 CY
XXX. Duration for Field Sampling	W SAMPHR0	1371.0000	HR *	Multiply by	1.0000 1371.0000 HR
XXX. Regular LLW Samples - Mobile Lab	W SAMPML0	39.0000	EA *	Multiply by	1.0000 39.0000 EA
XXX. Bottom Area Closure Sample Qty.	W SAMPCR0	11.0000	EA *	Multiply by	1.0000 11.0000 EA
XXX. QC Sample Quantity and Analysis	W SAMPQ10	14.0000	EA *	Multiply by	1.0000 14.0000 EA
XXX. Non-Contaminated Sample Quantity	W SAMPNC0	0.0000	EA *	Multiply by	1.0000 0.0000 EA
XXX. Site Perimeter	W SITEPRO0	1346.0000	LF *	Multiply by	1.0000 1346.0000 LF
XXX. Backfill Volume	W SPREAD0	37201.0000	LCY *	Multiply by	1.0000 37201.0000 LCY
XXX. Total On-Site Samples (ERC Team)	W SAMPTO0	0.0000	EA *	Multiply by	1.0000 0.0000 EA
XXX. Total Off-Site Samples(ERC Team)	W SAMPTF0	64.0000	EA *	Multiply by	1.0000 64.0000 EA
XXX. Total Subcontractors Samples	W SAMPTS0	217.0000	EA *	Multiply by	1.0000 217.0000 EA

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DETAILED ESTIMATE

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300 Area Burial Gnd Model-100% Level B (3BGN04)
01. Mobilization & Prep Work

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DETAIL PAGE 1

01.01. Mobilize Equipment & Facilities	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
01. Mobilization & Prep Work									
01.01. Mobilize Equipment & Facilities									
Notes:									
1. Mob and demob will occur 1 time per reactor area or 300 area. Estimates for mob and demob will be accomplished apart from the waste site MCACES estimates, but will reflect the equipment and facility requirements called for in the models.									
2. Mobilization of facilities such as office trailers, etc. (i.e. General Contractor mobilization) are excluded.									
TOTAL Mobilize Equipment & Facilities				0	0	0	0	0	0
01.04. Setup/Construct Temp Facilities									
01.04.05. Decon Fac. for Const. Equip/Veh. (Construct Decon Areas)									
Activity:									
Construct Decontamination area/pad for equipment and vehicles.									
Construction duration is 24 hours or 3 days.									
BLT S1 Group-6 Power Equipment Operator - 1 ea	24.00	HR	11788	33.74 810	0.00 0	0.00 0	0.00 0	33.74 810	33.74
BLT S1 Laborer Group 1, 3 ea. - 3 ea	72.00	HR	11786	29.73 2,141	0.00 0	0.00 0	0.00 0	29.73 2,141	29.73
FPC S1 Small Tools - 3 ea	72.00	HR	XMIIXX020	0.00 0	1.57 113	0.00 0	0.00 0	1.57 113	1.57
FPC S1 TRK,HWY,4X4,F250,3/4T,8800 GVW 4X4 3/4 TON PICK-UP - 1 ea	24.00	HR	T50FO004	0.00 0	7.66 184	0.00 0	0.00 0	7.66 184	7.66
GEN S1 LOADER/BH, WH, 0.80 CY (0.6 M3), F/E BKT 30" (762 MM) DIPPER (1 ea)	24.00	HR	L50Z4640	0.00 0	12.72 305	0.00 0	0.00 0	12.72 305	12.72
M USR S1 Construction Materials/Supplies Allowance	1.00	LS		0.00 0	0.00 0	2160.00 2,160	0.00 0	2160.00 2,160	2160.00
M USR S1 Allowance for Tank Assume 1000 gal plastic tank for water collection	1.00	EA		0.00 0	0.00 0	1620.00 1,620	0.00 0	1620.00 1,620	1620.00
TOTAL Decon Fac. for Const. Equip/Veh.	24.00	HR		2,950	602	3,780	0	7,333	305.53

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01.04. Setup/Construct Temp Facilities	QUANTITY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
01.04.11. Barricades (Install Temp. Fence) Production Rate = 100 LF/Crew Hour									
BLT S1 Truck Driver 1 ea	13.46	HR	11792	34.51 465	0.00 0	0.00 0	0.00 0	34.51 465	34.51
MAP S1 FLATBED, 8'x 12.0', W/SIDE RACKS (ADD TRUCK)- 1 ea.	13.46	HR	T40KF014	0.00 0	0.70 9	0.00 0	0.00 0	0.70 9	0.70
FPC S1 TRK,HWY,4X2,F350,1T,10000 GVW 4X2 1-TON PICK-UP,10000 GVW - 1 ea	13.46	HR	T50FO005	0.00 0	7.88 106	0.00 0	0.00 0	7.88 106	7.88
BLT S1 Laborer Group - 2 ea.	26.92	HR	11786	29.73 800	0.00 0	0.00 0	0.00 0	29.73 800	29.73
USR S1 Small Tool 2 ea	26.92	HR	XMIXX020	0.00 0	1.57 42	0.00 0	0.00 0	1.57 42	1.57
M USR S1 Matls./Sup. Allowance for Fence Fence	1346.00	LF		0.00 0	0.00 0	1.89 2,544	0.00 0	1.89 2,544	1.89
TOTAL Barricades (Install Temp. Fence)	1346.00	LF		1,265	158	2,544	0	3,967	2.95

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01.04. Setup/Construct Temp Facilities	QUANTITY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
01.04.91. Waste Site Survey Surface survey to locate control points, topo, roads, etc.									
USR S1 Allowance for Site Survey	1.00	LS		0.00 0	0.00 0	0.00 0	1600.00 1,600	1600.00 1,600	1600.00
TOTAL Waste Site Survey				0	0	0	1,600	1,600	

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01.04. Setup/Construct Temp Facilities	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
01.04.92. Ground Penetrating Radar (GPR)							
GPR work to locate site boundaries prior to excavation. Costs provided by CH2MHILL project personnel from actual cost for various size sites. Cost represents a weighted average by site area.							
USR S1 Ground Penetrating Radar	2.34 ACR	0.00 0	0.00 0	0.00 0	3200.00 7,488	3200.00 7,488	3200.00
TOTAL Ground Penetrating Radar (GPR)	2.34 ACR	----- 0	----- 0	----- 0	----- 7,488	----- 7,488	3200.00
TOTAL Setup/Construct Temp Facilities		4,215	760	6,324	9,088	20,387	

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01.06. Temp Relocatns/Roads/Struct/Util	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
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01.06. Temp Relocatns/Roads/Struct/Util

The unit rate was created using a detailed estimate on sites in the 100-BC Area, and by pro-rating the cost to a unit value of contaminated soil.

This cost is for in-situ gravel access roads, and for asphalt repairs.

01.06.01. Roads (Site Road Maint)Allowance

USR S1 Site Road Maintenance				0.00	0.00	0.00	0.58	0.58	
	38892	LCY		0	0	0	22,557	22,557	0.58
TOTAL Roads (Site Road Maint)Allowance	38892	LCY		0	0	0	22,557	22,557	0.58
TOTAL Temp Relocatns/Roads/Struct/Util	38892	LCY		0	0	0	22,557	22,557	0.58
TOTAL Mobilization & Prep Work				4,215	760	6,324	31,645	42,945	

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02.08. Sampling Rad Contaminated Media	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
02. Monitoring, Sampling, & Analysis							
02.08. Sampling Rad Contaminated Media							
(Radiation Monitoring)							
02.08.05. Sub-Surface Soil (Field Screening/Take Samples)							
Activities:							
Includes the personnel and equipment required to analyze field samples in the Mobile Field Screening Lab. Support staff is 1 ea. sampler/analysis Technician. Analysis done by XRF.							
The Mobile Field Screening Laboratory Trailer cost is \$78/Day rent. The \$78/day (or \$9.75/hr) includes \$48/day lab rental plus \$30/day which equates to \$7,500/year for replacement of lab equipment as needed.							
ERC AB ERC Environmental Engineer 1 ea	1371.00 HR 31000	67.63 92,721	0.00 0	0.00 0	0.00 0	67.63 92,721	67.63
USR AB Mob. Field Screening Laboratory 1 ea	1371.00 HRS	0.00 0	9.75 13,367	0.00 0	0.00 0	9.75 13,367	9.75
TOTAL Sub-Surface Soil (Field Screen-	1371.00 HR	92,721	13,367	0	0	106,088	77.38

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02.08. Sampling Rad Contaminated Media	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
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02.08.91. Excav. GW Prot. Sample Trenches

Notes:

This item has been zero'd out until project decides if this item will be required. If it should be required the current estimated cost will be \$750 per trench to be entered under the "unit" column. This \$750 per trench includes excavation, RCT support, and sampler. This is based on an estimate by Bruce Bennett dated 9/17/97.

TOTAL Excav. GW Prot. Sample Trenches	0	0	0	0	0	0
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02.08. Sampling Rad Contaminated Media	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

02.08.92. Site Certificaton Sampling							
Sample quantity determined by sample frequency of 1 sample per 6,264 SF of bottom and sideslope area (minimum of 6).							
Crew Output = 3 samples/hour							
HAM AB Instrument Technician - 2 ea.	7.00 HR 10T20	64.98 455	0.00 0	0.00 0	0.00 0	64.98 455	64.98
M USR AB Materials/Supplies Allowance	11.00 EA	0.00 0	0.00 0	5.83 64	0.00 0	5.83 64	5.83
TOTAL Site Certificaton Sampling	11.00 EA	455	0	64	0	519	47.18
TOTAL Sampling Rad Contaminated Media		93,176	13,367	64	0	106,607	

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02.09. Laboratory Chemical Analysis	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
02.09. Laboratory Chemical Analysis							
02.09.01. Air/Industrial Hygiene Analysis							
Analysis of personal air monitoring samples.							
Duration = Potential LDR Material Excavation/Treatment Duration + Asbestos							
Material Excavation Duration							
Sample Rate = 10 per week							
USR AB Air/Industrial Hygiene Analysis - Personal air monitor samples (Ref: Per 300 Area 1998 telephone quote on actual experience)	193.00 EA	0.00 0	0.00 0	0.00 0	65.00 12,545	65.00 12,545	65.00 65.00
TOTAL Air/Industrial Hygiene Analysis	193.00 EA	----- 0	----- 0	----- 0	12,545	12,545	65.00
TOTAL Laboratory Chemical Analysis	19.30 WKS	----- 0	----- 0	----- 0	12,545	12,545	650.00

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02.10. Radioactive Waste Analysis	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
02.10. Radioactive Waste Analysis							
02.10.05. Rad. Anal. Veg./Sediment/Soil (Sample Analytical Costs, Mobile lab & Offsite)							
<p>Note: Groundwater samples have been omitted since the projects have decided not to include them at this time. It can be reactivated by adding a quantity from the appropriate parameter.</p>							
USR AB Analyze LLW Sample - Onsite Lab Assume 1 sample per 200 LCYs of Contaminated Soil. Minimum of 6 sample.	39.00 EA	0.00 0	0.00 0	0.00 0	1100.00 42,900	1100.00 42,900	1100.00
USR AB Analyze Site Certification Samples Off-Site Lab Assume 1 sample per 6,264 sq ft of the bottom area + the side slope areas. Minimum of 6 samples.	11.00 EA	0.00 0	0.00 0	0.00 0	2000.00 22,000	2000.00 22,000	2000.00
USR AB Analyze Potential LDR Samples (Waste Zone Samples - Offsite) During removal operations, samples are taken every 150 LCY of material in the waste zone. These samples are analyzed in the mobile lab located at the site using X-Ray Fluorescents (XRF). Those samples which indicate the presence of potential LDR are sent to an outside lab for analysis. Potential LDR Off-Site Samples are taken 1 sample per every 150 lcy of Potential LDR volume.	39.00 EA	0.00 0	0.00 0	0.00 0	600.00 23,400	600.00 23,400	600.00
USR AB Analyze Quality Control Samples - Off-Site Lab Assume 5% of the sum of all other samples. Minimum of 3 sample.	14.00 EA	0.00 0	0.00 0	0.00 0	2000.00 28,000	2000.00 28,000	2000.00
TOTAL Rad. Anal. Veg./Sediment/Soil		0	0	0	116,300	116,300	
TOTAL Radioactive Waste Analysis		0	0	0	116,300	116,300	
TOTAL Monitoring, Sampling, & Analysis		93,176	13,367	64	128,845	235,452	

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

08. Solids Collection & Containment							
08.01. Contaminated Soil Collection							
(Excavate/Haul)							
08.01.02. Excavation (Contaminated Soil)							
08.01.02.01. Excavate/Load LLW							
Crew Output:							
32 LCY/Hr.							
BLT S1 Pwr Eqpmnt Oprtor Medium - 2 ea	1458.44 HR 11788	33.74 49,208	0.00 0	0.00 0	0.00 0	33.74 49,208	33.74
EP S1 HYD EXCAV, CRWLR, 90,200 LBS, 2.38 CY BKT - 1 ea.	729.22 HR H25HI011	0.00 0	88.72 64,698	0.00 0	0.00 0	88.72 64,698	88.72
MAP S1 LDR,FE, WH, 4.50 CY, ARTIC, 966F - 1 ea.	729.22 HR L40CA006	0.00 0	59.79 43,599	0.00 0	0.00 0	59.79 43,599	59.79
BLT S1 Laborer Group -(Semi-Skilled) - 5 ea	3646.09 HR 11786	29.73 108,398	0.00 0	0.00 0	0.00 0	29.73 108,398	29.73
NON S1 Small Tools 5 ea	3646.09 HR XMIXX020	0.00 0	1.57 5,724	0.00 0	0.00 0	1.57 5,724	1.57
HAM AB RAD CON TECH (NEW ID 10T25) -2.5 ea	1823.05 HR 10T17	57.98 105,700	0.00 0	0.00 0	0.00 0	57.98 105,700	57.98
ERC AB ERC FLD SUPPORT (Waste Shipper) -1 ea.	729.22 HR 53000	55.36 40,370	0.00 0	0.00 0	0.00 0	55.36 40,370	55.36
ERC AB ERC ENV LEAD & SPCLST (Sampler) - 1 ea.	729.22 HR 31000	67.63 49,317	0.00 0	0.00 0	0.00 0	67.63 49,317	67.63
ERC AB ERC SAFTY AND HEALTH (Hygenist) - 1 ea.	729.22 HR 58000	62.78 45,780	0.00 0	0.00 0	0.00 0	62.78 45,780	62.78
BLT AB Level B Superv. - Contractor 1 ea.	729.22 HR 11790	44.14 32,188	0.00 0	0.00 0	0.00 0	44.14 32,188	44.14
BLT AB Industrial Hygenist- Contractor - 1 ea.	729.22 HR 11792	34.51 25,165	0.00 0	0.00 0	0.00 0	34.51 25,165	34.51
TOTAL Excavate/Load LLW	23335 LCY	456,126	114,022	0	0	570,148	24.43

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08.01. Contaminated Soil Collection	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
08.01.02.02. Excavate/Load BCL Soils									
Work to be Performed:									
Excavate/load Below Cleanup Levels (BCL) soils found in waste zone.									
Crew Output:									
32 LCY/HR									
BLT S1 Pwr Eqpmnt Oprtor Medium - 2 ea	121.56	HR	11788	33.74 4,102	0.00 0	0.00 0	0.00 0	33.74 4,102	33.74
EP S1 HYD EXCAV, CRWLR, 90,200 LBS, 2.38 CY BKT - 1 ea.	60.78	HR	H25HI011	0.00 0	88.72 5,393	0.00 0	0.00 0	88.72 5,393	88.72
MAP S1 LDR,FE, WH, 4.50 CY, ARTIC, 966F - 1 ea.	60.78	HR	L40CA006	0.00 0	59.79 3,634	0.00 0	0.00 0	59.79 3,634	59.79
BLT S1 Laborer Group - (Semi-Skilled) - 5 ea	303.91	HR	11786	29.73 9,035	0.00 0	0.00 0	0.00 0	29.73 9,035	29.73
NON S1 Small Tools 5 ea	303.91	HR	XMIIXX020	0.00 0	1.57 477	0.00 0	0.00 0	1.57 477	1.57
HAM AB RAD CON TECH (NEW ID 10T25) -2.5 ea.	151.95	HR	10T17	57.98 8,810	0.00 0	0.00 0	0.00 0	57.98 8,810	57.98
ERC AB ERC FLD SUPPORT (Waste Shipper) -1 ea.	60.78	HR	53000	55.36 3,365	0.00 0	0.00 0	0.00 0	55.36 3,365	55.36
ERC AB ERC ENV LEAD & SPCLST (Sampler) - 1 ea.	60.78	HR	31000	67.63 4,111	0.00 0	0.00 0	0.00 0	67.63 4,111	67.63
MIL S1 TRK,OFF-HWY,R-DUMP, 15-19CY, 25T - 2 ea.	121.56	HR	T55DJ002	0.00 0	34.06 4,140	0.00 0	0.00 0	34.06 4,140	34.06
BLT S1 Truck Driver Group-10 - 2 ea	121.56	HR	11792	34.51 4,195	0.00 0	0.00 0	0.00 0	34.51 4,195	34.51
ERC S1 ERC SAFTY AND HEALTH -Hygenist -1 ea.	60.78	HR	58000	62.78 3,816	0.00 0	0.00 0	0.00 0	62.78 3,816	62.78
BLT S1 Level B Superv. Contractor 1 ea.	60.78	HR	11790	44.14 2,683	0.00 0	0.00 0	0.00 0	44.14 2,683	44.14
BLT S1 Industrial Hygenite- Contractor 1 ea.	60.78	HR	11792	34.51 2,098	0.00 0	0.00 0	0.00 0	34.51 2,098	34.51
TOTAL Excavate/Load BCL Soils	1945.00	LCY		42,214	13,644	0	0	55,858	28.72

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08.01. Contaminated Soil Collection	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
08.01.02.03. Excavate/Load LDR Materials									
Excavate potential Land Disposal Restriction Materials (LDR) found in waste zone and haul LDR to be treated to the Treatment Area. The Potential LDR volume includes both the material that will require treatment and the material that has been shown not to require treatment by sample analysis (Non-treated Potential LDR). The excavation crew handles the entire volume of material. LDR material to be treated is hauled by truck to the treatment area at a rate of 18.7 lcy/hr (treatment rate). The Non-treated Potential LDR material is hauled to the Queue Area at the LDR Crew excavation rate (08.01.03).									
Excavation Crew Output: 21 LCY/HR									
BLT S1 Pwr Eqpmnt Oprtor Medium - 2 ea	555.62	HR	11788	33.74 18,747	0.00 0	0.00 0	0.00 0	33.74 18,747	33.74
EP S1 HYD EXCAV, CRWLR, 90,200 LBS, 2.38 CY BKT - 1 ea.	277.81	HR	H25HI011	0.00 0	88.72 24,648	0.00 0	0.00 0	88.72 24,648	88.72
MAP S1 LDR,FE, WH, 4.50 CY, ARTIC, 966F - 1 ea.	277.81	HR	L40CA006	0.00 0	59.79 16,610	0.00 0	0.00 0	59.79 16,610	59.79
BLT S1 Laborer Group - 5 (Semi-Skilled) - 3 ea. (inside fence) - 2 ea. (outside fence)	1389.05	HR	11786	29.73 41,296	0.00 0	0.00 0	0.00 0	29.73 41,296	29.73
NON S1 Small Tools 5 ea	1389.05	HR	XMIIXX020	0.00 0	1.57 2,181	0.00 0	0.00 0	1.57 2,181	1.57
HAM AB RAD CON TECH (NEW ID 10T25) -2.5 ea.	694.52	HR	10T17	57.98 40,268	0.00 0	0.00 0	0.00 0	57.98 40,268	57.98
ERC AB ERC SAFTY & HEALTH (Hygenist) - 1 ea.	277.81	HR	58000	62.78 17,441	0.00 0	0.00 0	0.00 0	62.78 17,441	62.78
ERC AB ERC FLD SUPPORT (Waste Shipper) -1 ea.	277.81	HR	53000	55.36 15,380	0.00 0	0.00 0	0.00 0	55.36 15,380	55.36
ERC AB ERC ENV LEAD & SPCLST (Sampler) - 1 ea.	277.81	HR	31000	67.63 18,788	0.00 0	0.00 0	0.00 0	67.63 18,788	67.63
BLT S1 Level B Supv. (S/C) Per change order for subcontractor work the Level B Supervisor pay is approx. the same as a Pipefitter.	277.81	HR	11790	44.14 12,263	0.00 0	0.00 0	0.00 0	44.14 12,263	44.14

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
USR S1 20 Ton Tilt Trailer (For trucks to haul ERDF containers) Ref. Blue Book 1998 -1 ea.	311.98 HR YAL	0.00 0	3.28 1,023	0.00 0	0.00 0	3.28 1,023	3.28
MIL S1 TRK,HWY, 46,000 GVW, 6X4, 3 AXLE -1 ea.	311.98 HR T50PE002	0.00 0	36.62 11,425	0.00 0	0.00 0	36.62 11,425	36.62
BLT S1 Truck Driver Group-10 - 1 ea	311.98 HR 11792	34.51 10,766	0.00 0	0.00 0	0.00 0	34.51 10,766	34.51
USR S1 Industrial Hygenist- Contractor (1 ea. Inside Fence)	277.81 HR 11792	34.51 9,587	0.00 0	0.00 0	0.00 0	34.51 9,587	34.51
TOTAL Excavate/Load LDR Materials	5834.00 LCY	184,536	55,886	0	0	240,423	41.21

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

08.01.02.04. Excavate/Load Special Handling							
Excavation of "Other" non-LDR materials. Costs include handling large pieces of metal and size reduction. Other materials are expected to be encountered but cannot be quantified. Therefore, the handling and sizing of the metals is being utilized as an allowance to cover the cost for materials which would require special handling.							
Crew Output: 21 LCY/Hr.							
BLT S1 Pwr Eqpmnt Oprtor Medium - 1 ea	120.76 HR 11788	33.74 4,075	0.00 0	0.00 0	0.00 0	33.74 4,075	33.74
EP S1 HYD EXCAV, CRWLR, 90,200 LBS, 2.38 CY BKT - 1 ea.	120.76 HR H25HI011	0.00 0	88.72 10,714	0.00 0	0.00 0	88.72 10,714	88.72
BLT S1 Laborer Group - (Semi-Skilled) - 5 ea	603.81 HR 11786	29.73 17,951	0.00 0	0.00 0	0.00 0	29.73 17,951	29.73
NON S1 Small Tools 5 ea	603.81 HR XMIXX020	0.00 0	1.57 948	0.00 0	0.00 0	1.57 948	1.57
HAM AB RAD CON TECH (NEW ID 10T25) -2.5 ea.	301.90 HR 10T17	57.98 17,504	0.00 0	0.00 0	0.00 0	57.98 17,504	57.98
ERC AB ERC FLD SUPPORT (Waste Shipper) -1 ea.	120.76 HR 53000	55.36 6,685	0.00 0	0.00 0	0.00 0	55.36 6,685	55.36
ERC AB ERC ENV LEAD & SPCLST (Sampler) - 1 ea.	120.76 HR 31000	67.63 8,167	0.00 0	0.00 0	0.00 0	67.63 8,167	67.63
ERC AB ERC SAFTY AND HEALTH- Hygenist - 1 ea.	120.76 HR 58000	62.78 7,581	0.00 0	0.00 0	0.00 0	62.78 7,581	62.78
BLT AB Level B Superv. - Contractor - 1 ea.	120.76 HR 11790	44.14 5,330	0.00 0	0.00 0	0.00 0	44.14 5,330	44.14
BLT AB Industrial Hygenist- Contractor - 1 ea.	120.76 HR 11792	34.51 4,167	0.00 0	0.00 0	0.00 0	34.51 4,167	34.51
TOTAL Excavate/Load Special Handling	2536.00 LCY	71,462	11,662	0	0	83,124	32.78

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300 Area Burial Gnd Model-100% Level B (3BGN04)
08. Solids Collection & Containment

TIME 11:07:05

08.01. Contaminated Soil Collection	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

08.01.02.05. Excavate/Load Asbestos Waste									
Excavation of materials containing Asbestos.									
Crew Output:									
32 LCY/Hr.									
BLT S1 Pwr Eqpmnt Oprtr Medium - 2 ea	364.63	HR	11788	33.74 12,302	0.00 0	0.00 0	0.00 0	33.74 12,302	33.74
EP S1 HYD EXCAV, CRWLR, 90,200 LBS, 2.38 CY BKT - 1 ea.	182.31	HR	H25HI011	0.00 0	88.72 16,175	0.00 0	0.00 0	88.72 16,175	88.72
MAP S1 LDR,FE, WH, 4.50 CY, ARTIC, 966F - 1 ea.	182.31	HR	L40CA006	0.00 0	59.79 10,900	0.00 0	0.00 0	59.79 10,900	59.79
BLT S1 Laborer Group -(Semi-Skilled) - 5 ea	911.56	HR	11786	29.73 27,101	0.00 0	0.00 0	0.00 0	29.73 27,101	29.73
NON S1 Small Tools 5 ea	911.56	HR	XMIIXX020	0.00 0	1.57 1,431	0.00 0	0.00 0	1.57 1,431	1.57
HAM AB RAD CON TECH (NEW ID 10T25) -2.5 ea.	455.78	HR	10T17	57.98 26,426	0.00 0	0.00 0	0.00 0	57.98 26,426	57.98
ERC AB ERC FLD SUPPORT (Waste Shipper) -1 ea.	182.31	HR	53000	55.36 10,093	0.00 0	0.00 0	0.00 0	55.36 10,093	55.36
ERC AB ERC ENV LEAD & SPCLST (Sampler) - 1 ea.	182.31	HR	31000	67.63 12,330	0.00 0	0.00 0	0.00 0	67.63 12,330	67.63
ERC AB ERC SAFTY AND HEALTH- Hygenist - 1 ea.	182.31	HR	58000	62.78 11,446	0.00 0	0.00 0	0.00 0	62.78 11,446	62.78
BLT AB Level B Superv. - Contractor - 1 ea.	182.31	HR	11790	44.14 8,047	0.00 0	0.00 0	0.00 0	44.14 8,047	44.14
BLT AB Industrial Hygenist- Contractor - 1 ea.	182.31	HR	11792	34.51 6,292	0.00 0	0.00 0	0.00 0	34.51 6,292	34.51
TOTAL Excavate/Load Asbestos Waste	5834.00	LCY		114,036	28,507	0	0	142,543	24.43

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

08.01.02.06. Provide Dust Suppression Duration is equal to contaminated zone excavation time.							
BLT S1 Truck Driver Group-10 - 1 ea	1370.88 HR 11792	34.51 47,309	0.00 0	0.00 0	0.00 0	34.51 47,309	34.51
FPC S1 TRK,WTR,OFF-HWY, 6000GAL,CAT621E 6000 GALLON WITH CAT 621E TRAC - 1 ea	1370.88 HR T60KI002	0.00 0	60.15 82,453	0.00 0	0.00 0	60.15 82,453	60.15
TOTAL Provide Dust Suppression	171.36 DAY	----- 47,309	----- 82,453	----- 0	----- 0	129,763	757.25
TOTAL Excavation (Contaminated Soil)		----- 915,684	----- 306,174	----- 0	----- 0	1,221,858	

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08.01. Contaminated Soil Collection	QUANTY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

08.01.03. Hauling (To Queue Area)							
Includes Haulage of LLW, Non-treated Potential LDR (material cleared via sampling), Special Handling Wastes, and Asbestos Wastes to the Queue Area. It is assumed that the treated LDR waste will be loaded directly onto the disposal site trucks at the treatment area. Therefore, there will be no haulage to the Queue Area for the treated LDR wastes.							
BLT S1 Heavy Truck Driver - 3 ea.	2929.67 HR 11792	34.51 101,103	0.00 0	0.00 0	0.00 0	34.51 101,103	34.51
MIL S1 TRK,HWY, 46,000 GVW, 6X4, 3 AXLE - 3 ea.	2929.67 HR T50PE002	0.00 0	36.62 107,284	0.00 0	0.00 0	36.62 107,284	36.62
USR S1 20 Ton Tilt Trailer - 3 ea.	2929.67 HR	0.00 0	3.28 9,609	0.00 0	0.00 0	3.28 9,609	3.28
TOTAL Hauling (To Queue Area)	2929.67 HRS	101,103	116,893	0	0	217,996	74.41

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
08.01.04. Stockpiling (Exc. Overburden)							
08.01.04.01. Excavate and Stockpile							
Work to be Performed:							
Excavate overburden by hydraulic excavators and hauled to stockpile with 2 15 CY end dump trucks.							
Crew Output:							
146 LCY/HR							
TOTAL Excavate and Stockpile	HR	0	0	0	0	0	0

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08.01. Contaminated Soil Collection QUANTITY UOM CREW ID LABOR EQUIPMENT MAT/SUPP UNIT COST TOTAL COST UNIT COST

08.01.04.02. Provide Dust Suppression

Work to be Performed:

Suppress dust by water spray. Apply crusting agent to stockpiled soil. Assumes 1 gal. of crusting agent per 102 LCY's of non-contaminated soil

Crew Output

Duration is equal to overburden excavation duration
146 LCY/HR

TOTAL Stockpiling (Exc. Overburden) 0 0 0 0

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
08.01.91. Frisking Tent Operations (Survey/Decon trucks and Containers)							
Frisking tent operation is assumed to be only during the excavation/hauling of contaminated material portion of the work scope.							
08.01.91.01. Frisk Containers/Trucks							
	Activity: RCT's check containers and trucks for external surface contamination prior to hauling containers to the Queue Area.						
HAM AB Radiation Control Techs. (2 ea)	3136.00 HR 10T17	57.98 181,825	0.00 0	0.00 0	0.00 0	57.98 181,825	57.98
TOTAL Frisk Containers/Trucks	196.00 DAY	181,825	0	0	0	181,825	927.68

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08.01. Contaminated Soil Collection	QUANTY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

08.01.91.02. Decontaminate Containers							
Work to be Performed: Close/secure container liner and spray/decon waste containers prior to transport to disposal facility (if contaminated). Water is recycled for contaminated dust suppression.							
Crew and Equipment: Fixed Price Contractor: 2 Laborers							
Equipment: 1 water blaster, 1 sump pump, and 1 12,000 gal portable water tank							
Duration is equal to the duration of haulage to the Queue Area from the contaminated zone.							
BLT S1 Laborer Group - 2 - 2 ea	3136.00 HRS 11786	29.73 93,233	0.00 0	0.00 0	0.00 0	29.73 93,233	29.73
EP S1 WATER BLASTR, COLD WTR, 2500 PSI , 4 GPM - 1 ea.	1568.00 HR W25SD005	0.00 0	3.87 6,072	0.00 0	0.00 0	3.87 6,072	3.87
FPC S1 PUMP,WATER,SUB,3", 278GPM/20' HD 3" - 278 GPM AT 20' HEAD - 1 ea	1568.00 HR P55GR002	0.00 0	0.87 1,359	0.00 0	0.00 0	0.87 1,359	0.87
MIL S1 WATER TANK,PORT,12000GAL,10"PIPE MOBILE - 1 ea	1568.00 HR W30SO003	0.00 0	8.58 13,450	0.00 0	0.00 0	8.58 13,450	8.58
FPC S1 Small Tools - 2 ea	3136.00 HR XMIXX020	0.00 0	1.57 4,924	0.00 0	0.00 0	1.57 4,924	1.57
TOTAL Decontaminate Containers	196.00 DAY	93,233	25,805	0	0	119,038	607.34
TOTAL Frisking Tent Operations		275,059	25,805	0	0	300,863	

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08.01. Contaminated Soil Collection	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
08.01.92. Queue Area Operations									
Activity:									
Includes installation of liners in containers and misc. activities necessary to the Queue Area for the duration of the contaminated soil excavation/haulage. Each container receives a liner. Each asbestos container receives two (2) liners.									
BLT S1 LABORERS (2 EA.)	3136.00	HR	11786	29.73 93,233	0.00 0	0.00 0	0.00 0	29.73 93,233	29.73
HAM AB Radiation Control Tech. (.5 FTE) .5 FTE's)	784.00	HR	10T17	57.98 45,456	0.00 0	0.00 0	0.00 0	57.98 45,456	57.98
USR S1 Container Liners	3765.00	EA.		0.00 0	0.00 0	24.31 91,530	0.00 0	24.31 91,530	24.31
TOTAL Queue Area Operations	196.00	DAY		138,690	0	91,530	0	230,220	1174.59

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
08.01.93. Radiation Control Tech. Support							
Crew:							
Rad Control Techs. - 2.5 FTE'S/Day of Overburden excavation.							
RCT coverage for the Contaminated Zone excavation is covered in each of the							
excavation items.							
TOTAL Radiation Control Tech. Support	HR	0	0	0	0	0	0

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08.01. Contaminated Soil Collection	QUANTY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
08.01.94. Site Lighting							
Lighting of the Queue Area for night operations to pickup and deliver waste containers by ERDF Transportation Contractor.							
Activity assumed to occur approximately 1/2 time. (6 months/year)							
Duration is equal to Contaminated Zone excavation duration.							
MIL S1 LITE SET, 6L/1000W, 8KW-GEN,TRLR - 2 ea.	1370.88 HR L20AI004	0.00 0	8.90 12,207	0.00 0	0.00 0	8.90 12,207	8.90 12,207
TOTAL Site Lighting	171.36 DAY	0	12,207	0	0	12,207	71.24

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
08.01.95. PPE							
08.01.95.01. PPE (Subcontractor Furnished)							
Note:							
Disposable protective clothing supplied by the subcontractor.							
Assumptions:							
1. The subcontractor will provide disposable protective clothing for ERC Rad. Control Technicians.							
2. Workers using disposalbe PPE will require 2 sets/man/day and RCT's in the zone use 4 sets/day/man of disposable protective clothing at \$9.50/change (set).							
3. Workers using cloth PPE will require 3 sets/man/day at a contracted cost of \$3.36/set.							
4. Masks requirement will be 9 per day/crew for asbestos duration at a cost of \$65/mask.							
USR S1 Disposable PPE Sets Requirements:	1129.00 SET	0.00	0.00	10.26	0.00	10.26	10.26
	LDR Excav. = 28 Sets/day	0	0	11,584	0	11,584	
	LDR Treatment = 4 Sets/day						
USR S1 Subcontractor Supplied Masks	2056.00 EA	0.00	0.00	65.00	65.00	133,640	65.00
		0	0	0	133,640		
USR S1 PPE Requirements - Disposable Assumes 2 changes per man/day Requirements:	3895.00 EA	0.00	0.00	3.63	0.00	3.63	3.63
	LLW Excav. = 28 Sets/Day	0	0	14,134	0	14,134	
	BCL Excav. = 28 Sets/Day						
	Special Handle Mat. = 28 Sets/Day						
	Asbestos Excav. = 31 Sets/day						
TOTAL PPE (Subcontractor Furnished)		-----	0	25,718	-----	133,640	159,358

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08.01. Contaminated Soil Collection	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
08.01.95.03. Air Supply - Level B Protection									
Supplied air is required for Level B Protection during excavation of LDR materials. Air to be supplied by compressor with air hoses.									
Duration is equal to LDR excavation/hauling duration.									
MAP S1 AIR COMPR, 185 CFM, 100 PSI - 1 ea.	1370.88	HR	A15SR004	0.00 0	6.55 8,976	0.00 0	0.00 0	6.55 8,976	6.55
MIL S1 AIR HOSE, 0.75", 100', YELLOW-LIN - 10 ea.	13709	HR	A20XX009	0.00 0	0.18 2,500	0.00 0	0.00 0	0.18 2,500	0.18
MIL S1 GENERATOR, 113 KW, 240/480V, 60 HZ, SKID MOUNTED -1 ea	1370.88	HR	G10CA001	0.00 0	10.98 15,052	0.00 0	0.00 0	10.98 15,052	10.98
USR S1 Air Sample & Analysis 1 per month (minimum of one (1) sample)	8.00	EA		0.00 0	0.00 0	0.00 0	115.00 920	115.00 920	115.00
TOTAL Air Supply - Level B Protection	171.36	DAY		0	26,528	0	920	27,448	160.18
TOTAL PPE				0	26,528	25,718	134,560	186,806	

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08.01. Contaminated Soil Collection	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

08.01.96. Personnel Training Allowance							
USR S1 8-Hour Supervisor Course	1.00 EA	0.00 0	0.00 0	0.00 0	300.00 300	300.00 300	300.00
USR S1 40 Hour Site Specific Training	2.00 EA	0.00 0	0.00 0	0.00 0	1200.00 2,400	1200.00 2,400	1200.00
USR S1 Fundamentals of Radiation Safety	2.00 EA	0.00 0	0.00 0	0.00 0	600.00 1,200	600.00 1,200	600.00
TOTAL Personnel Training Allowance		0 ----- 0	0 ----- 0	0 ----- 0	3,900 ----- 3,900	3,900 ----- 3,900	
TOTAL Contaminated Soil Collection		1,430,535	487,607	117,248	138,460	2,173,850	
TOTAL Solids Collection & Containment		1,430,535	487,607	117,248	138,460	2,173,850	

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10. Drums/Tanks/Structures/Misc

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10.07. Miscellaneous Items	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
10. Drums/Tanks/Structures/Misc									
Demolition & Removal									
10.07. Miscellaneous Items									
10.07.91. Size Reduction of Special Matl									
Size reduction of Special Handling Materials (Steel). (See section 8.01.04)									
Crew Output:									
13 LCY/HR									
BLT S1 OPERATING ENGINEERS (S/C)				33.74	0.00	0.00	0.00	33.74	
- 1 ea.	195.08	HR	11788	6,582	0	0	0	6,582	33.74
EP S1 HYD EXCAV, CRWLR, 90,200 LBS, 2.38 CY BKT - 1 ea.	195.08	HR	H25HI011	0.00	88.72	0.00	0.00	88.72	
				0	17,308	0	0	17,308	88.72
MIL S1 SHEAR, 32"OPEN, 32"THROAT, 13'4"RCH -1 ea.	195.08	HR	H25LU010	0.00	39.45	0.00	0.00	39.45	
				0	7,696	0	0	7,696	39.45
TOTAL Size Reduction of Special Matl	2536.00	LCY		6,582	25,004	0	0	31,586	12.45
				-----	-----	-----	-----	-----	
TOTAL Miscellaneous Items				6,582	25,004	0	0	31,586	
TOTAL Drums/Tanks/Structures/Misc				6,582	25,004	0	0	31,586	

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15. Stabilization/Fix/Encapsulate

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15.04. Grouting (Portland Cement)	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
15. Stabilization/Fix/Encapsulate									
15.04. Grouting (Portland Cement)									
LDR waste volume to be grouted, poured into forms, cured, and disposed of at ERDF.									
Crew Output:									
17.8 CY of LDR waste/HR									
Assumes grouted material volume increase is 0.23 cy per cy of LDR material.									
MIL S1 CONC DISP, 50 CF CEMENT BIN 4.50 CY AGG BIN, 15 CY/HR, STA	311.98	HR	B10CC002	0.00 0	9.87 3,080	0.00 0	0.00 0	9.87 3,080	9.87 3,080
T - 1 ea.									
MIL S1 FORK LIFT,YRD 15,500#,17.67'L-HT -1 ea.	311.98	HR	F10HY004	0.00 0	19.62 6,122	0.00 0	0.00 0	19.62 6,122	19.62 6,122
Used to move grouted LDR forms and material.									
MIL S1 HYD EXCAV, CRWLR, 1.125CY BKT, REACH BOOM -1 ea.	311.98	HR	H25CA023	0.00 0	39.56 12,343	0.00 0	0.00 0	39.56 12,343	39.56 12,343
Used to mix LDR with cement and load grouted material into forms.									
BLT S1 LABORERS (S/C) - 2 ea.	623.96	HR	11786	29.73 18,550	0.00 0	0.00 0	0.00 0	29.73 18,550	29.73 18,550
BLT S1 OPERATING ENGINEERS (S/C) - 2 ea.	623.96	HR	11788	33.74 21,052	0.00 0	0.00 0	0.00 0	33.74 21,052	33.74 21,052
USR S1 Sonotube forms 4 ft dia x 6 ft L (pricing calculated from Western Materials 1998 telephone quote)	7176.00	CY		0.00 0	0.00 0	41.00 294,193	0.00 0	41.00 294,193	41.00 294,193
USR S1 Portland Cement (Dry) (Ref. Central Premix telephone quote May 1998) 0.23 CY/LCY of LDR material	1342.00	CY		0.00 0	0.00 0	237.60 318,859	0.00 0	237.60 318,859	237.60 318,859
USR S1 TCLP (leachability test) (Ref. Based on 300 Area, project actuals telephone quote, 1998) 1 Sample per 300 CY of grouted material	24.00	EA		0.00 0	0.00 0	0.00 0	600.00 14,400	600.00 14,400	600.00 14,400
TOTAL Grouting (Portland Cement)	7176.00	CY		----- 39,603	----- 21,544	----- 613,052	----- 14,400	----- 688,599	----- 95.96

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300 Area Burial Gnd Model-100% Level B (3BGN04)
15. Stabilization/Fix/Encapsulate

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15.91. Load Stabilized Waste onto Truck	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
15.91. Load Stabilized Waste onto Truck							
Loading of LDR monoliths onto Haul Trucks for hauling to the disposal facility.							
Assumed each monolith to be 5.7 Tons and to be loaded directly onto the trucks going to the disposal facility.							
Crew Output:							
6.25 Monoliths/HR							
MIL S1 FORK LIFT,YRD 15,500#,17.67'L-HT -1 ea.	408.96 HR F10HY004	0.00 0	19.62 8,025	0.00 0	0.00 0	19.62 8,025	19.62
BLT S1 OPERATING ENGINEERS (S/C) - 1 ea.	408.96 HR 11788	33.74 13,798	0.00 0	0.00 0	0.00 0	33.74 13,798	33.74
BLT S1 LABORERS (S/C) - 2 ea.	817.92 HR 11786	29.73 24,317	0.00 0	0.00 0	0.00 0	29.73 24,317	29.73
NON S1 SMALL TOOLS 2 ea	817.92 HR XMIXX020	0.00 0	1.57 1,284	0.00 0	0.00 0	1.57 1,284	1.57
TOTAL Load Stabilized Waste onto Truck	2556.00 EA	38,115	9,309	0	0	47,425	18.55
<hr/>							
TOTAL Stabilization/Fix/Encapsulate							
		77,718	30,854	613,052	14,400	736,024	

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18. Disposal (Other than Commercial)

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18.21. Trans. to Storage/Disp. Facility	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
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18. Disposal (Other than Commercial)

Assumptions:

Material density of contaminated material is assumed to be 1.73 tons/bcy.
Material swell factor is assumed to be 15%. Container capacity is assumed
at 19.3 tons/container (i.e. per truckload).

18.21. Trans. to Storage/Disp. Facility

Notes:

This is the cost of transporting the contaminated waste from the queue
area to the ERDF facility. These costs are covered in the ERDF ADS. In the
event that the ERDF transporation costs are desired in this model this
feature may be changed to provide the cost for ERDF Transportation.

This rate reflects the soil density of 1.73 tons per bank cubic yard. It
also assumes the maximum load limit per container at 12.87 LCY/load or
19.3 tons per container.

TOTAL Trans. to Storage/Disp. Facility	69504 TON	0	0	0	0	0	0.00
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18. Disposal (Other than Commercial)

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18.22. Disposal Fees and Taxes (ERDF)	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
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18.22. Disposal Fees and Taxes (ERDF)

Disposal fee and taxes are covered in the ERDF ADS except if other disposal areas are used that require a fee. In that case, a per yard cost will be entered here to include the disposal costs associated with the individual waste site. Also, in the event that the ERDF fees and taxes are required to be in this model (for FFS estimates would be an example) this model can be changed to show this cost for the ERDF disposal fees and taxes.

TOTAL Disposal Fees and Taxes (ERDF)	69504 TON	0	0	0	0	0	0.00
TOTAL Disposal (Other than Commercial)		0	0	0	0	0	

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20. Site Restoration

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20.01. Earthwork	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

20. Site Restoration							
20.01. Earthwork							
20.01.03. Backfill (Load/Haul Borrow)							
Activity:							
This includes loading and hauling the excavation fill material to the site for site restoration. Excavation fill material includes stockpiled overburden and BCL plus any borrow volume required to fill the excavation. The task also includes dust suppression for the activity.							
Assumptions:							
1. Assume borrow available on-site. No charge for material.							
2. 15% swell factor on LLW soil quantity.							
3. Hauling speed is 30 mph. Return speed is 40 mph.							
4. Truck capacity is 15 loose cu yd, based on the following:							
- Average soil density at Hanford = 3,240 lb/bcy							
- Weight limit on Hanford roads = 80,000 lbs							
- Weight of dump truck = 30,000 lbs							
Output:							
219 loose cu yd per crew hour							
BLT S1 Group-7 Pwr Eqpmnt Oprtr Medium - 1 ea	169.87 HR 11788	33.74 5,731	0.00 0	0.00 0	0.00 0	33.74 5,731	33.74
MAP S1 LDR,FE, WH, 4.50 CY, ARTIC, 966F - 1 ea.	169.87 HR L40CA006	0.00 0	59.79 10,156	0.00 0	0.00 0	59.79 10,156	59.79
BLT S1 Truck Drivers Group-8 Quantity calculated by parameter worksheet.	679.47 HR 11792	34.51 23,449	0.00 0	0.00 0	0.00 0	34.51 23,449	34.51
MIL S1 TRK,OFF-HWY,R-DUMP, 15-19CY, 25T (number of trucks is determined by the NUMTRK PARAMETER)	679.47 HR T55DJ002	0.00 0	34.06 23,140	0.00 0	0.00 0	34.06 23,140	34.06
BLT S1 Truck Driver (Group 8) - 1 ea.	169.87 HR 11792	34.51 5,862	0.00 0	0.00 0	0.00 0	34.51 5,862	34.51
UPB S1 TRK,WTR,OF-HY, 6000GAL,W/CAT621E - 1 ea.	169.87 HR T60KI002	0.00 0	60.15 10,217	0.00 0	0.00 0	60.15 10,217	60.15
TOTAL Backfill (Load/Haul Borrow)	37201 LCY	35,042	43,513	0	0	78,555	2.11

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20.01. Earthwork	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

20.01.06. Spreading (Spread/Comp. Borrow)							
Stockpiled Non-Contaminated Soil and borrow.							
Output:							
219 loose cu yd per crew hour							
BLT S1 Group-7 Pwr Eqpmnt Oprtor Medium - 1 ea	169.87 HR 11788	33.74 5,731	0.00 0	0.00 0	0.00 0	33.74 5,731	33.74 33.74
GEN S1 DOZER, CRWLR, 251-300 HP (187-224 KW), PS (W/ U BLADE) (1 ea)	169.87 HR T15Z6560	0.00 0	59.43 10,096	0.00 0	0.00 0	59.43 10,096	59.43 59.43
BLT S1 Truck Driver Group 8 - 1 ea	169.87 HR 11792	34.51 5,862	0.00 0	0.00 0	0.00 0	34.51 5,862	34.51 34.51
FPC S1 TRK,WTR,OFF-HWY, 6000GAL,CAT621E 6000 GALLON WITH CAT 621E TRAC - 1 ea	169.87 HR T60KI002	0.00 0	60.15 10,217	0.00 0	0.00 0	60.15 10,217	60.15 60.15
TOTAL Spreading (Spread/Comp. Borrow)	37201 LCY	----- 11,593	----- 20,313	----- 0	----- 0	----- 31,906	----- 0.86
TOTAL Earthwork		----- 46,635	----- 63,826	----- 0	----- 0	----- 110,462	

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20. Site Restoration

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20.04. Revegetation and Planting	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
20.04. Revegetation and Planting									
20.04.01. Seeding/Mulch/Fertilizer (Grass) (i.e Dryland Grass/Mechanical Revegitation)									
Activities:									
Mechanical seeding with fertilizer and mulch. Seeding assumed to occur during Sept-Nov. timeframe.									
Output:									
1 acre per crew hour									
BLT S1 Operating Engineer (2 ea)	4.68	HR	11788	33.74 158	0.00 0	0.00 0	0.00 0	33.74 158	33.74
USR S1 4 Wheel Drive Tractor (2 ea)	4.68	HRS		0.00 0	7.50 35	0.00 0	0.00 0	7.50 35	7.50
USR S1 Mulch Spreader (1 ea)	2.34	HRS		0.00 0	1.83 4	0.00 0	0.00 0	1.83 4	1.83
USR S1 Tiller (1 ea)	2.34	HRS		0.00 0	1.25 3	0.00 0	0.00 0	1.25 3	1.25
USR S1 Primary Seeder (1 ea)	2.34	HRS		0.00 0	1.32 3	0.00 0	0.00 0	1.32 3	1.32
M USR S1 Seed, Fertilizer, and Mulch	2.34	ACR		0.00 0	0.00 0	356.40 834	0.00 0	356.40 834	356.40
TOTAL Seeding/Mulch/Fertilizer (Grass)	2.34	ACR		158	45	834	0	1,037	443.28

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20.04. Revegetation and Planting	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

20.04.04. Shrubs, Trees, & Groundcover							
Activity:							
Hand planting of sage brush seedlings @ \$0.80/each. Planting density will be 400 tublings/acre. Planting assumed to take place during September /November timeframe. Tubling cost is \$320/Acre.							
Productivity: 1.0 acre per crew hour							
USR S1 SAGE BRUSH TUBLINGS	936.00 EA	0.00 0	0.00 0	0.86 809	0.00 0	0.86 809	0.86 0.86
BLT S1 LABORERS (6 EA.)	14.04 HR 11786	29.73 417	0.00 0	0.00 0	0.00 0	29.73 417	29.73 29.73
BLT S1 LABORER (Working Supervisor) (1 ea)	2.34 HR 11786	29.73 70	0.00 0	0.00 0	0.00 0	29.73 70	29.73 29.73
UPB S1 TRK,HWY, 8,800GVW,4X4, 3/4T-PKUP (1 ea)	2.34 HR T50FO004	0.00 0	7.66 18	0.00 0	0.00 0	7.66 18	7.66 7.66
UPB S1 SMALL TOOLS (6 ea)	14.04 HR XMIXX020	0.00 0	1.57 22	0.00 0	0.00 0	1.57 22	1.57 1.57
TOTAL Shrubs, Trees, & Groundcover	2.34 ACR	487	40	809	0	1,336	570.79

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20.04. Revegetation and Planting	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
20.04.91. Irrigation									
The following assumptions is used to calculate an allowance for irrigation costs. Actual site location, conditions and available water sources will determine the most cost effective application of water.									
Parameters supplied by Ecology (January 28, 2000): Irrigate site 4 times in late Spring/early Summer (over a 2 month timeframe). Total application per site: 1.5 inch of water/acre or 40,731 gal of water/acre.									
Crew Output: 0.061 acre per hour, based on 1.6 hrs cycle time per truck (assumes water source 5 miles from site).									
BLT S1 Truck Driver (1 ea)	38.26	HR	11792	34.51 1,321	0.00 0	0.00 0	0.00 0	34.51 1,321	34.51
MIL S1 TRLR,WATER TANKER,4000GAL (ADD TOWING TRUCK) (1 ea)	38.00	HR	T45XX029	0.00 0	9.22 350	0.00 0	0.00 0	9.22 350	9.22
MIL S1 TRK,HWY, 43,000 GVW, 6X4,3 AXLE (1 ea)	38.00	HR	T50FO013	0.00 0	22.21 844	0.00 0	0.00 0	22.21 844	22.21
USR S1 10,000 gal. Holding Tank w/ gas powered pump. (1 ea)	2.00	MO		0.00 0	300.00 600	0.00 0	0.00 0	300.00 600	300.00
M S1 2" Dist. Lines w/ Sprinkler Hds (Allowance)	2.34	ACR		0.00 0	0.00 0	2160.00 5,054	0.00 0	2160.00 5,054	2160.00
TOTAL Irrigation	2.33	ACR		1,321	1,794	5,054	0	8,169	3499.69
TOTAL Revegetation and Planting				1,965	1,879	6,697	0	10,542	
TOTAL Site Restoration				48,601	65,706	6,697	0	121,004	

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21. Demobilization

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21.01. Removal of Temporary Facilities	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
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21. Demobilization

Activity:

Because multiple sites will be cleaned up within an operable unit the cost for subcontractor mob/demob is spread among the operable unit sites. Site specific demobilization is included for the following:

1. Removal of fencing
2. Removal of Decon area
3. Scarifying new roads
4. Misc. cleanup allowance
5. Final Topographical map
6. Post Construction Submittals

21.01. Removal of Temporary Facilities

- 21.01.05. Decon. Fac. for Const. Equip/Veh
(Remove Decontamination Area)

Activity:

Includes 3 laborers to remove frisking tent and a backhoe loading one 15 CY dump truck to remove gravel area.

Duration:

The duration was assumed to be 2/3 of the duration used to erect the tent under the mobilization section (16 hrs).

BLT S1 Group-6 Power Equipment Operator - 1 ea	16.00 HR 11788	33.74 540	0.00 0	0.00 0	0.00 0	33.74 540	33.74
GEN S1 LOADER/BH, WH, 0.80 CY (0.6 M3), F/E BKT 30" (762 MM) DIPPER (1 ea)	16.00 HR L50Z4640	0.00 0	12.72 204	0.00 0	0.00 0	12.72 204	12.72
BLT S1 Truck Driver (1 ea)	16.00 HR 11792	34.51 552	0.00 0	0.00 0	0.00 0	34.51 552	34.51
MIL S1 TRK, OFF-HWY, R-DUMP, 15-19CY, 25T (1 ea)	16.00 HR T55DJ002	0.00 0	34.06 545	0.00 0	0.00 0	34.06 545	34.06
BLT S1 Laborer Group - 1 - 3 ea	48.00 HR 11786	29.73 1,427	0.00 0	0.00 0	0.00 0	29.73 1,427	29.73
FPC S1 Small Tools - 3 ea	48.00 HR XMIXX020	0.00 0	1.57 75	0.00 0	0.00 0	1.57 75	1.57
TOTAL Decon. Fac. for Const. Equip/Veh	16.00 HR	2,519	824	0	0	3,343	208.93

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21. Demobilization

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21.01. Removal of Temporary Facilities	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST

21.01.11. Barricades (Remove Temp. Fence)							
Assumptions:							
1. It was assumed that the fence could be removed twice as fast as the time it took to install it. Installation rate was 100LF/hr and the dismantling rate is therefore 200 LF/hr.							
2. It was assumed that since the installation crew was made up of 2 laborers. The removal crew is 2 laborers. Installation and removal require a flatbed truck with a driver (teamster).							
MAP S1 FLATBED, 8'x 12.0', W/SIDE RACKS (ADD TRUCK) - 1 ea.	7.00 HR T40KF014	0.00 0	0.70 5	0.00 0	0.00 0	0.70 5	0.70
FPC S1 TRK,HWY,4X2,F350,1T,10000 GVW 4X2 1-TON PICK-UP,10000 GVW - 1 ea	7.00 HR T50FO005	0.00 0	7.88 55	0.00 0	0.00 0	7.88 55	7.88
FPC S1 Small Tools - 2 ea	13.00 HR XMIXX020	0.00 0	1.57 20	0.00 0	0.00 0	1.57 20	1.57
BLT S1 LABORERS - 2 ea.	13.00 HR 11786	29.73 386	0.00 0	0.00 0	0.00 0	29.73 386	29.73
BLT S1 TEAMSTERS (S/C) - 1 ea.	7.00 HR 11792	34.51 242	0.00 0	0.00 0	0.00 0	34.51 242	34.51
TOTAL Barricades (Remove Temp. Fence)	1346.00 LF	628	81	0	0	709	0.53

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21.01. Removal of Temporary Facilities	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
21.01.25. Roads & Parking (Scarify N. Rds) (Scarify New Roads)									
<hr/>									
Activity:									
Includes an allowance for a 12G grader with a ripper/scarifier. Assumed two passes on road. Total job assumed to be 30 minutes.									
BLT S1 Heavy Equipment Operator (1 ea)	0.50	HR	11788	33.74 17	0.00 0	0.00 0	0.00 0	33.74 17	33.74
UPB S1 GRADER,MOTOR, ARTIC, CAT 12-G (1 ea)	0.50	HR	G15CA003	0.00 0	32.02 16	0.00 0	0.00 0	32.02 16	32.02
USR S1 5 Shank Ripper/Scarifier (Cost from Blue Book) (1 ea)	0.50	HR		0.00 0	1.18 1	0.00 0	0.00 0	1.18 1	1.18
TOTAL Roads & Parking (Scarify N. Rds)	625.00	LF		17	17	0	0	33	0.05

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21. Demobilization

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21.01. Removal of Temporary Facilities	QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>									
21.01.91. Misc. Cleanup Allowance									
<hr/>									
Activity:									
Includes 2 laborers and a flatbed truck with driver for 8 hours to perform misc. cleanup activities around the site.									
BLT S1 Truck Driver (1 ea)	8.00	HR	11792	34.51 276	0.00 0	0.00 0	0.00 0	34.51 276	34.51
FPC S1 TRK,HWY,4X2,F350,1T,10000 GVW 4X2 1-TON PICK-UP,10000 GVW - 1 ea	8.00	HR	T50FO005	0.00 0	7.88 63	0.00 0	0.00 0	7.88 63	7.88
MAP S1 FLATBED, 8'x 12.0', W/SIDE RACKS (ADD TRUCK) - 1 ea.	8.00	HR	T40KF014	0.00 0	0.70 6	0.00 0	0.00 0	0.70 6	0.70
BLT S1 LABORERS (2 ea)	16.00	HR	11786	29.73 476	0.00 0	0.00 0	0.00 0	29.73 476	29.73
NON S1 SMALL TOOLS 2 ea	16.00	HR	XMIIXX020	0.00 0	1.57 25	0.00 0	0.00 0	1.57 25	1.57
TOTAL Misc. Cleanup Allowance	8.00	HR		752	94	0	0	846	105.70
TOTAL Removal of Temporary Facilities				3,916	1,015	0	0	4,930	

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21.06. Submittals	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
21.06. Submittals							
21.06.05. Const. Documentation Report (Post Construction Submittals Allowance)							
S1 Post Construction Submittals Submittals by Fixed Price Contractor.	1.00 LS	0.00 0	0.00 0	0.00 0	5000.00 5,000	5000.00 5,000	5000.00 5,000
TOTAL Const. Documentation Report		----- 0	----- 0	----- 0	----- 5,000	----- 5,000	

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21.06. Submittals	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
<hr/>							
21.06.06. As-Built Drawings (Topo's) Survey of site and reduction of data.							
USR S1 Site Survey	1.00 LS	0.00 0	0.00 0	0.00 0	1600.00 1,600	1600.00 1,600	1600.00 1600.00
TOTAL As-Built Drawings (Topo's)		0	0	0	1,600	1,600	
TOTAL Submittals		0	0	0	6,600	6,600	
TOTAL Demobilization		3,916	1,015	0	6,600	11,530	

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70. Project/Construction Mgmt & Supt

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			QUANTITY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
70. Project/Construction Mgmt & Supt											
Activity:											
This reflects a total PM/CM crew of 3 FTE's/day of duration. (Project experience as per PM/CM memo from G. Van Sickle dated 5/2/97.)											
ERC AB	ERC PLANNING & CONTROLS (2.69 hours per day of project duration)		724.00	HR	21000	57.91 41,927	0.00 0	0.00 0	0.00 0	57.91 41,927	57.91
ERC AB	ERC DESIGN ENGINEERING (1.72 hours per day of project duration)		463.00	HR	32000	70.82 32,790	0.00 0	0.00 0	0.00 0	70.82 32,790	70.82
ERC AB	ERC PROJECT ENGINEER (Use rate for Design Engr.) (2.27 hours per day of project duration)		611.00	HR	32000	70.82 43,271	0.00 0	0.00 0	0.00 0	70.82 43,271	70.82
ERC AB	ERC PROCUREMENT (1.65 hours per day of project duration)		444.00	HR	41000	52.21 23,181	0.00 0	0.00 0	0.00 0	52.21 23,181	52.21
ERC AB	ERC PROJECT MANAGEMENT (3.34 hours per day of project duration)		898.00	HR	51000	88.17 79,177	0.00 0	0.00 0	0.00 0	88.17 79,177	88.17
ERC AB	ERC QUALITY ASSURANCE (.54 hours per day of project duration)		145.00	HR	52000	71.63 10,386	0.00 0	0.00 0	0.00 0	71.63 10,386	71.63
ERC AB	ERC FIELD SUPPORT (8.52 hours per day of project duration)		2292.00	HR	53000	55.36 126,885	0.00 0	0.00 0	0.00 0	55.36 126,885	55.36
ERC AB	ERC ADMINISTRATIVE SERVICES (1.41 hours per day of project duration)		379.00	HR	55000	32.04 12,143	0.00 0	0.00 0	0.00 0	32.04 12,143	32.04
ERC AB	ERC RAD. CON. ENGINEER (Use ERC Environmental Engr rate) (.46 hours per day of project duration)		124.00	HR	35000	71.63 8,882	0.00 0	0.00 0	0.00 0	71.63 8,882	71.63
ERC AB	ERC SAFETY AND HEALTH (1.42 hours per day of project duration)		382.00	HR	58000	62.78 23,982	0.00 0	0.00 0	0.00 0	62.78 23,982	62.78
TOTAL Project/Construction Mgmt & Supt						-----	402,624	0	0	0	402,624

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DETAILED ESTIMATE

U.S. Army Corps of Engineers
PROJECT 618-1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)
XXX. Estimate Quantities (3BGN04)

TIME 11:07:05

XXX.XX. Input Quantities			QUANTY	UOM	CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
XXX. Estimate Quantities (3BGN04)											
XXX.XX. Input Quantities											
USR	Contaminated Soil & Buried Waste					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			913111	BCF							
USR	Top Excavation Length					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			169.00	LF							
USR	Top Excavation Width					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			384.00	LF							
USR	Bottom Area					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			37950	SF							
USR	Hauling Distance for Borrow					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			2.00	MI							
USR	Depth of Excavation					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			18.00	LF							
USR	LLW % of Waste Zone (norm 0.60%)					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			0.60	FAC							
USR	Below Cleanup Level % Waste Zone (norm 0.05%)					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			0.05	FAC							
USR	Potential LDR % Waste Zone (norm 0.15%)					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			0.15	FAC							
USR	Special Handling % Waste Zone (norm 0.05%)					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			0.05	FAC							
USR	Asbestos Matl % Waste Zone (norm 0.15%)					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			0.15	FAC							
USR	% Potential LDR Require Treatment (norm 1.0%)					0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
			1.00	FAC							
TOTAL Input Quantities						0	0	0	0	0	0

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DETAILED ESTIMATE

U.S. Army Corps of Engineers
PROJECT 618--1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)
XXX. Estimate Quantities (3BGN04)

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XXX.YY. Additional Quantities		QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
XXX.YY. Additional Quantities								
USR	Site Area	101676 SF	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Total Project Duration	269.00 DAY	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Total Excavation Duration	171.00 DAY	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Tonnage of LLW	69504 TON	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Total Volume of Waste to ERDF (LLW+Asbestos+Potential LDR Not Treated+Treated LDR+Special Handling)	38881 LCY	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Monoliths Vol (incl in EDRF Vol)	7176.00 CY	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Duration for Field Sampling	1371.00 HR	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Regular LLW Samples - Mobile Lab	39.00 EA	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Bottom Area Closure Sample Qty.	11.00 EA	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	QC Sample Quantity and Analysis	14.00 EA	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Site Perimeter	1346.00 LF	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Backfill Volume	37201 LCY	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Total Off-Site Samples(ERC Team)	64.00 EA	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
USR	Total Subcontractors Samples (Workers Air Supply and TCLP)	217.00 EA	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0.00
TOTAL Additional Quantities			0	0	0	0	0	0
TOTAL Estimate Quantities (3BGN04)			0	0	0	0	0	0

Fri 23 Feb 2001
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DETAILED ESTIMATE

U.S. Army Corps of Engineers
PROJECT 618--1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)
XXX. Estimate Quantities (3BGN04)

TIME 11:07:05
DETAIL PAGE 49

XXX.YY. Additional Quantities	QUANTITY UOM CREW ID	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
TOTAL HANFORD: ER PROGRAM	2,067,366	624,313	743,385	319,950		3,755,014	

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U.S. Army Corps of Engineers
PROJECT 618--1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)
** PROJECT DIRECT SUMMARY - FEATURE **

TIME 11:07:05
SUMMARY PAGE 1

	QUANTITY UOM	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST	UNIT COST
01	Mobilization & Prep Work	4,215	760	6,324	31,645	42,945	
02	Monitoring, Sampling, & Analysis	93,176	13,367	64	128,845	235,452	
08	Solids Collection & Containment	1,430,535	487,607	117,248	138,460	2,173,850	
10	Drums/Tanks/Structures/Misc	6,582	25,004	0	0	31,586	
15	Stabilization/Fix/Encapsulate	77,718	30,854	613,052	14,400	736,024	
20	Site Restoration	48,601	65,706	6,697	0	121,004	
21	Demobilization	3,916	1,015	0	6,600	11,530	
70	Project/Construction Mgmt & Supt	402,624	0	0	0	402,624	
TOTAL HANFORD: ER PROGRAM		2,067,366	624,313	743,385	319,950	3,755,014	
FIELD OH		6.28 %				235,890	
SUBTOTAL HOME OFC		1.77 %				3,990,905	
SUBTOTAL PROFIT		4.07 %				4,061,672	
SUBTOTAL BOND		0.73 %				165,123	
SUBTOTAL B&O TAX		0.32 %				4,226,795	
TOTAL INCL INDIRECTS DIR DIST		22.38 %				4,257,775	
SUBTOTAL G & A		3.93 %				955,900	
TOTAL INCL OWNER COSTS						5,227,125	
						205,426	
						5,432,551	

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U.S. Army Corps of Engineers
PROJECT 618--1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)
** CONTRACTOR DIRECT SUMMARY **

TIME 11:07:05
SUMMARY PAGE 2

	QUANTITY UOM	LABOR	EQUIPMNT	MAT/SUPP	UNITCOST	TOTAL COST
AB No Markup Items	1,253,834	13,367	64	128,845	1,396,110	
S1 Prime Contractor	813,532	610,945	743,321	191,105	2,358,904	

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U.S. Army Corps of Engineers
PROJECT 618--1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)
** CONTRACTOR INDIRECT SUMMARY **

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SUMMARY PAGE 3

	TOTAL DIRECT	FIELD OH	HOME OFC	PROFIT	BOND	B&O TAX	TOTAL COST	UNIT COST
AB No Markup Items	1,396,110	0	0	0	0	0	1,396,110	
S1 Prime Contractor	2,358,904	235,890	70,767	165,123	30,980	13,450	2,875,115	

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U.S. Army Corps of Engineers
PROJECT 618--1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)
** LABOR BACKUP **

TIME 11:07:05
BACKUP PAGE 1

SRC LABOR ID	DESCRIPTION	BASE	OVERTM	TXS/INS	FRNG	TRVL	RATE	UOM	UPDATE	DEFAULT	**** TOTAL **** HOURS
HAM 10T17	RAD CON TECH (THI)	57.98	0.0%	0.0%	0.00	0.00	57.98	HR	02/02/00	0.00	7347
HAM 10T20	INSTR SPECIALIST-TECH (THI)	64.98	0.0%	0.0%	0.00	0.00	64.98	HR	02/02/00	0.00	7
BLT 11786	LABORERS (S/C)	29.73	0.0%	0.0%	0.00	0.00	29.73	HR	02/09/00	0.00	11625
BLT 11788	OPERATING ENGINEERS (S/C)	33.74	0.0%	0.0%	0.00	0.00	33.74	HR	02/09/00	0.00	4234
BLT 11790	PLUMBER / STEAMFITTERS (S/C)	44.14	0.0%	0.0%	0.00	0.00	44.14	HR	02/09/00	0.00	1371
BLT 11792	TEAMSTERS (S/C)	34.51	0.0%	0.0%	0.00	0.00	34.51	HR	02/09/00	0.00	7207
ERC 21000	ERC PLANNING & CONTROLS	57.91	0.0%	0.0%	0.00	0.00	57.91	HR	02/02/00	0.00	724
ERC 31000	ERC ENVIRON SPCLST & LEADS	67.63	0.0%	0.0%	0.00	0.00	67.63	HR	02/04/00	0.00	2742
ERC 32000	ERC DESIGN ENGINEERING AVG	70.82	0.0%	0.0%	0.00	0.00	70.82	HR	02/04/00	0.00	1074
ERC 35000	ERC ENVIRONMENTAL COMPLIANCE	71.63	0.0%	0.0%	0.00	0.00	71.63	HR	02/02/00	0.00	124
ERC 41000	ERC PROCUREMENT	52.21	0.0%	0.0%	0.00	0.00	52.21	HR	02/02/00	0.00	444
ERC 51000	ERC PROJECT MANAGEMENT	88.17	0.0%	0.0%	0.00	0.00	88.17	HR	02/02/00	0.00	898
ERC 52000	ERC QA (ENVIR COMPLIANCE 35700)	71.63	0.0%	0.0%	0.00	0.00	71.63	HR	02/02/00	0.00	145
ERC 53000	ERC FIELD SUPPORT AVG	55.36	0.0%	0.0%	0.00	0.00	55.36	HR	02/04/00	0.00	3663
ERC 55000	ERC ADMINISTRATIVE SERVICES	32.04	0.0%	0.0%	0.00	0.00	32.04	HR	02/02/00	0.00	379
ERC 58000	ERC SAFTY AND HEALTH AVG	62.78	0.0%	0.0%	0.00	0.00	62.78	HR	02/04/00	0.00	1753

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U.S. Army Corps of Engineers
PROJECT 618--1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)
** EQUIPMENT BACKUP **

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SRC	ID.NO.	EQUIPMENT DESCRIPTION	DEPR	FCCM	FUEL	FOG	TR WR	TR REP	EQ REP	** TOTAL **	
										HOURS	RATE
EP	A15SR004	AIR COMPR, 185 CFM, 100 PSI	1.19	0.28	2.80	0.93			1.34	6.55 HR	1371
EP	A20XX009	AIR HOSE, 0.75", 100', YELLOW-LIN	0.06	0.00					0.12	0.18 HR	13709
EP	B10CC002	CONC DISP, 50 CF CEMENT BIN	2.55	0.50	0.46	2.74			3.61	9.87 HR	312
EP	F10HY004	FORK LIFT, YRD 15,500#, 17.67'L-HT	4.59	1.01	6.78	1.88	0.25	0.04	5.07	19.62 HR	721
EP	G10CA001	GENERATOR, 113 KW, 240/480V,	2.00	0.39	5.28	1.47			1.84	10.98 HR	1371
EP	G15CA003	GRADER, MOTOR, ARTIC, CAT 12-H	10.60	3.47	3.99	1.60	0.47	0.08	11.82	32.02 HR	1
EP	H25CA023	HYD EXCAV, CRWLR, 45,320 LBS,	13.93	3.54	3.89	1.73			16.48	39.56 HR	312
EP	H25HI011	HYD EXCAV, CRWLR, 90,200 LBS,	31.08	7.89	8.99	3.99			36.77	88.72 HR	1566
MAP	H25LU010	SHEAR, 32"OPEN, 32"THROAT, 13'4"RCH	15.81	1.98		2.00			19.66	39.45 HR	195
EP	L20AI004	LITE SET, 6L/1000W, 8KW-GEN, TRLR	2.27	0.44	0.63	0.17	0.03	0.00	5.35	8.90 HR	1371
MAP	L40CA006	LDR,FE, WH, 4.50 CY, ARTIC, 966F	19.33	4.80	6.68	3.34	3.76	0.63	21.26	59.79 HR	1420
GEN	L50Z4640	LOADER/BCK-HOE, WH, 0.80CY(0.6M3)	3.73	0.94	1.82	0.69	0.72	0.12	4.70	12.72 HR	40
EP	P55GR002	PUMP, SUBM, 3"D, 278 GPM/20'HD, E	0.25	0.06	0.21	0.11			0.23	0.87 HR	1568
GEN	T15Z6560	DOZER, CRAWLER, 251-300HP	16.21	6.01	10.10	3.36			23.75	59.43 HR	170
MAP	T40KF014	FLATBED, 8'x 12.0', W/SIDE RACKS	0.34	0.06					0.30	0.70 HR	28
EP	T45XX029	TRLR, WATER TANKER, 4000GAL	2.85	0.77	1.91	0.53	0.22	0.04	2.89	9.22 HR	38
MAP	T50FO004	TRK,HWY, 8,800GVW,4X4, 3/4T-PKUP	1.93	0.35	2.28	0.76	0.34	0.06	1.96	7.66 HR	26
EP	T50FO005	TRK,HWY,10,000GVW,4X2, 1T-PICKUP	1.96	0.36	2.28	0.76	0.46	0.08	2.00	7.88 HR	28
EP	T50FO013	TRK,HWY, 43,000 GVW, 6X4, 3 AXLE	6.18	1.13	6.39	2.13	0.80	0.13	5.44	22.21 HR	38
EP	T50PE002	TRK,HWY, 46,000 GVW, 6X4, 3 AXLE	9.86	1.83	10.65	3.55	1.73	0.29	8.71	36.62 HR	3242
EP	T55DJ002	TRK,OFF-HWY,R-DUMP, 13.7-18CY,	10.13	4.84	4.13	1.65	4.09	0.68	8.52	34.06 HR	817
MAP	T60KI002	TRK,WTR,OF-HY, 6000GAL,W/CAT621E	18.24	4.93	10.02	3.78	3.45	0.57	19.16	60.15 HR	1711
EP	W25SD005	WATER BLASTR, COLD WTR, 2500 PSI	0.88	0.09	1.16	0.32			1.42	3.87 HR	1568
EP	W30SO003	WATER TANK,PORT,12000GAL,10"PIPE	3.57	0.92	0.58	0.17	0.14	0.02	3.18	8.58 HR	1568
NON	XMIXX020	SMALL TOOLS	0.50	0.22	0.16	0.07			0.63	1.57 HR	10998
USR	YA1	20 Ton Tilt Trailer	3.28						3.28	HR	312

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ERROR REPORT

U.S. Army Corps of Engineers
PROJECT 618--1: HANFORD: ER PROGRAM - REMEDIATION 300 Area ACP
300 Area Burial Gnd Model-100% Level B (3BGN04)

TIME 11:07:05
ERROR PAGE 1

R2032: 021005	Analyze Non-	Detail item has zero quantity - no costs reported
R2032: 08010401	Group-7 Pwr	Detail item has zero quantity - no costs reported
R2032: 08010401	HYD EXCAV, C	Detail item has zero quantity - no costs reported
R2032: 08010401	Heavy Truck	Detail item has zero quantity - no costs reported
R2032: 08010401	TRK,OFF-HWY,	Detail item has zero quantity - no costs reported
R2032: 08010402	Truck Driver	Detail item has zero quantity - no costs reported
R2032: 08010402	TRK,WTR,OFF-	Detail item has zero quantity - no costs reported
R2032: 08010402	Crusting Age	Detail item has zero quantity - no costs reported
R2032: 080193	Radiation Co	Detail item has zero quantity - no costs reported
R2032: 1821	ERDF Transpo	Detail item has zero quantity - no costs reported
R2032: 1822	Disposal Fac	Detail item has zero quantity - no costs reported
R2032: XXXXX	Non-Contamin	Detail item has zero quantity - no costs reported
R2032: XXXXX	Groundwater	Detail item has zero quantity - no costs reported
R2032: XXXYY	Non-Contamin	Detail item has zero quantity - no costs reported
R2032: XXXYY	Non-Contamin	Detail item has zero quantity - no costs reported
R2032: XXXYY	Total On-Sit	Detail item has zero quantity - no costs reported

* * * END OF ERROR REPORT * * *

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